STIC-Biotech/ChemLib

From:

Chan, Christina

Sent:

To:

Subject:

Wednesday, October 01, 2003 4:35 PM Schnizer, Holly; STIC-Biotech/ChemLib RE: Request for RUSH sequence search for Appl. no. 09/444,281

Importance:

High

Please rush. Thanks Chris

Chris Chan

TC 1600 New Hire Training Coordinator and SPE 1644 308-3973 CM-1, 9B19

----Original Message-----

Fr m:

Schnizer, Holly

Sent:

Wednesday, October 01, 2003 4:26 PM

To:

Chan, Christina

Subject:

Request for RUSH sequence search for Appl. no. 09/444,281

I would like to request the following RUSH sequence search for the above appl. which is an amended due this biweek (Oct. 6).

Please search the commercial and interference databases for the peptide of SEQ ID NO:85 (ILPWKWPWWPWRR)

Thank you.

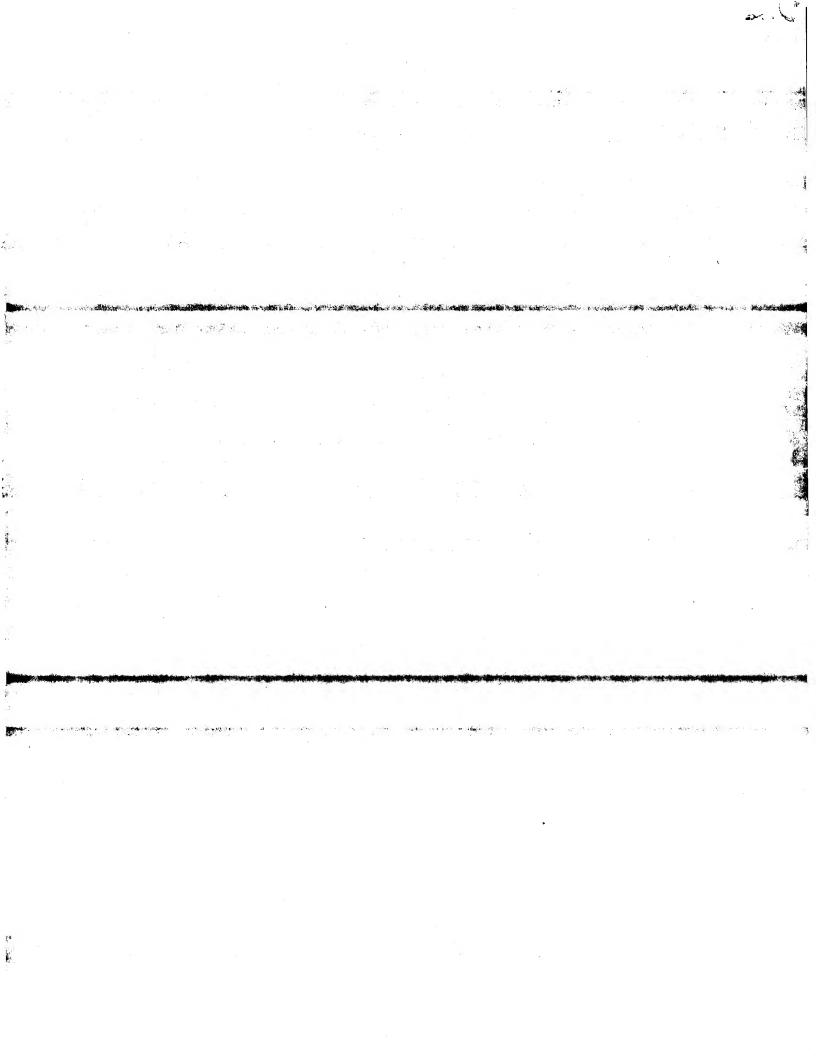
Holly Schnizer AU 1653 CM1-9E09 305-3722

mailbox: CM1-9B01

Searcher:
Phone:
Location:
Date Picked Up:
Date Completed:
Searcher Prep/Review:
Clerical:
Online time:

TYPE OF SEARCH:
NA Sequences:
AA Sequences:
Structures:
Bibliographic:
Litigation:
Full text:
Patent Family:
Other:

VENDOR/COST (where ap	plic.)
STN:	
DIALOG:	
Questel/Orbit:	
DRLink:	
Lexis/Nexis:	
Sequence Sys.:	
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        2003, 09:56:42; Search time 77 Seconds (without alignments)
26.798 Million cell updates/sec
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Broad spectrum ant Indolicidin analog Indolicidin analog Cationic peptide i Antimicrobial pept Synthetic antimicr Cationic peptide I Amino acid sequenc Amino acid sequenc
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DT 25-M
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XX Tryp
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ALIGNMENTS

AAR30970 standard; peptide; 13 ξ

AAR30970;

25-MAR-2003 12-MAY-1993 (updated)
(first entry)

Broad spectrum antimicrobial indolicidin peptide

Tryptophan rich; microbial; microbistatic; inhibition.

Bos taurus.

23-DEC-1992

10-JUN-1992; 92WO-US04920

14-JUN-1991; 91US-0715271

(REGC) UNIV CALIFORNIA

Cullor JS, Selsted ME

WPI; 1993-017896/02.

Broad spectrum antimicrobial cpd. obtd. from bovine granulocytes - comprises tryptophan rich peptide, pref. having low immunogenicity and comprising proline rich peptide or carboxy terminal amide

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ARRESULT 2
ARAPRA 27
AND ARAPRA 27
ARAPRA 
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These analogues exhibit broad spectrum antimicrobial activity and have antimicrobial selectivity when compared to naturally occuring indolicidin. The antimicrobial activity of these analogues can be altered by incorporation of D-form, chemically altered or synthetic amino acids. These sequences can be incorporated into a pharmaceutical composition (e.g. as a liposome or non-liposome lipid complex carrier) for use in a microbicidal method. These sequences are active against gram positive and negative bacteria, protozoa, yeast, fungi and viruses. They can be used as therapeutic agents, prophylactics, food preservatives, disinfectants or medications. These sequences are easily synthesised in an active and effective broad spectrum antimicrobial form
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The sequence is that of an indolicidin peptide which shows broad spectrum antimicrobial activity and when administered to a host does not elicit an immune response. It is effective against viruses, gram positive bacteria, gram negative bacteria and fungi, including Staphylococcus aureus, Escherichia coli, Salmonella typhimurium, Listeria monocytogenes, Candida albicans and Cryptococcus neoformans. It can be used as a therapeutic agent, food preservative or disinfectant, e.g. to purify a water supply. The peptide is pref. administered at an effective amt. of 0.5-500 ug/ml final concentration.
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                                                                                                                                                                                                                                                                                                                                                    The sequences represented by AAR78454-R78459 are indolicidin analogues
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preservative; disinfectant; medication; Gram positive bacteria;
negative bacteria; protozoa; yeast; fungi; viruses.
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CC (I)-(VIII) containing up to 25 amino acids (aa): RXZXZXBB (I), BXZXXXXB (II), BXZXXXXB (II), BXZXXXXB (II), BXZXXXXBB (II), BXZXXXXBB (II), BXZXXXXBB (II), BXZXXXXBB (II), BXZXXXXBB (III), BXZXXXXBB (IVI), BXZXXXXBB (IVI), BXZXXXXBB (IVI), BXXXXXBB (IVII), BX (III), AT Least 2 X = F or Y. The analogues are used to treat CC infections caused by bacteria (Gram positive or negative, or anaerobic); CC fungi (yeast or moulds); parasites (protozoa, nematodes, cestodes or CC fungi (yeast or viruses. Typical of very many pathogens that can be controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola CC controlled are Leishmania, Trypanosoma, Ascaris lumbricoides, Fasciola CC hepatica, Klebsiella pneumoniae, Bordetella pertussis, Staphylococcus CC derived from the analogues may be used similarly; the compounds may CC also be prepared from antibiotics or antiarrythmic agents. The analogues CC may be used therapeutically or to coat medical devices; also they are useful as surface disinfectants, as additives to shampoo or soaps, as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
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Matches 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indolicidin; bacterial infection; photo-oxidised solubiliser; antimicrobial; antibiotic; antiarrythmic; surface disinfectant; additive; shampoo; soap; insecticide; herbicide; preservative; food; technical material.
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21-AUG-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New indolicidin analogues with antimicrobial activity and related
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indolicidin
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13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ILPWKWPWWPWRR 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fraser JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97US-0034949.
96US-0024754.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Taylor R,
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9.8e-07;
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Query Match
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Matches 13
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Best Local
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10-MAR-1997;
20-AUG-1997;
26-SEP-1997;
                                                                                                             AAW66393 to AAW66469 represent native cationic peptides from the present invention. The present invention describes compositions and methods for treating infection, especially bacterial infections. The compositions and methods use cationic peptides in combination with an antibiotic agent which are then administered to a patient to enhance the activity of the antibiotic agent, to overcome: (a) tolerance; (b) acquired resistance; and (c) inherent resistance. The combinations of antibiotics and cationic peptides can provide synergistic activity against a microorganism that is tolerant, inherently resistant, or has
                                                                                                                                                                                                                                                                                         New indolicidin peptide analogues - useful for, e.g. enhancing activity of antibiotic or overcoming tolerance, acquired resistance or inherent resistance of microorganisms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      insecticides or herbicides, or as preservatives for foods and technical materials. The analogues are administered by injection, lavage, orally or topically, generally at 0.1-50 mg/kg. These analogues have a broader spectrum of activity than indolicidin and modification as compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                           Sequence
                                                                                   e.g. bacteria, fungi, parasites
                                                                                      acquired resistance to an antibiotic agent. They can be used for killire.g. bacteria, fundi, naracitor and discontinuous fundi.
                                                                                                                                                                                                                                                              Disclosure; Page 10; 105pp; English.
                                                                                                                                                                                                                                                                                                                                                      WPI; 1998-520800/44
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cationic peptide indolicidin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-JAN-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW66441 standard; peptide; 13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                             (MICR-) MICROLOGIX BIOTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bacteria; fungus; parasite; virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indolicidin analogue; resistance; cationic peptide; antibiotic;
bacterial infection; tolerance; antibacterial; microorganism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          reduces their toxicity.
 1 Similarity
13; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ILPWKWPWWPWRR 13
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100.0%; ilarity 100.0%; Conservative 0
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97US-0040649.
97US-0915314.
97US-0060099.
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рл,
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                                                                                                                                                                                                                                                                                                                                                                                   West MHP;
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 0;
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Pred. No. 9.8
); Mismatches
            Score 99; DB 19;
Pred. No. 9.8e-07;
                                                                                     and viruses
 Mismatches
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9.8e-07;
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                           Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                    used for killing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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Indels

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Gaps

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ILPWKWPWWPWRR 13

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RESULT 5
AAW87609
                                                           The invention relates to mass production of antimicrobial peptides. The comprises constructing a fusion gene containing a first gene encoding a negatively charged acidic peptide having at least two cysteine residues, and a second gene encoding a positively charged basic antimicrobial peptide. A host microorganism is transformed with a vector containing the fusion gene and then cultured. The expressed antimicrobial peptide is then recovered. The method is used to mass produce antimicrobial peptides in recombinant microorganisms. The inhibitory ceffect of the expressed antimicrobial peptide upon the growth of the host microorganism is considerably reduced by fusing it to the acidic peptide. Therefore, the use of the fusion gene provides an economic, recombinant alternative of mass producting antimicrobial peptides, which overcomes the clasdvantages of low-productivity and poor economy, previously encountered by recombinant and chemical methods. The present sequence crepresents an antimicrobial peptide Guamerin gene in the used along with the acidic peptide Guamerin gene in the construction of the fusion gene.
Matches
                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                        New method for mass production of antimicrobial peptides - by constructing fusion genes comprising acidic and antimicrobial peptide genes and transforming host with vector containing these
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              guamerin;
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                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-059844/05.
N-PSDB; AAV83788.
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28-MAY-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Antimicrobial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Antimicrobial peptide Indolicidin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-MAR-1999
                                                                                                                                                                                                                                                                                                                                                              Example 6; Page 18; 52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (KOAD ) KOREA ADV INST SCI & (SAMY-) SAMYANG GENEX CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-MAY-1998;
               Local
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l Similarity
13; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kang MH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ILPWKWPWWPWRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             basic peptide; Indolicidin.
                                                          13
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                           AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            fusion; acidic peptide; recombinant; microorganism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98KR-0013372
97KR-0021312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-KR00132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kim JH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  peptide;
            100.0%;
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0;
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              Score 99; DB 20;
Pred. No. 9.8e-07;
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Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lee H,
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Indels
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RESULT 7
AAY91740
ID AAY9
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AC AAY9
XX
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AAY92794
ID AAY9
                                                                                                                                          Query Match
Best Local S
Matches 13
                                                                                                                                                                                                                           stability against plant protease degradation. Expression of antimicrobial peptides in transgenic plants suffers a major limitation in that the foreign peptides are susceptible to rapid degradation by proteases. The invention concerns reducing the extent of protease degradation of a protein applied to, or produced by a plant by administering indolicidin, Rev4 or a functional equivalent to the plant. Transgenic plants expressing indolicidin and Rev4 are useful for production of the antimicrobial peptides. Compositions containing indolicidin and Rev4 are
             AAY91740;
                                AAY91740 standard; Peptide; 13 AA
                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                       Indolicidin is a potent antimicrobial tridecapeptide, originally purified from cytoplasmic granules of bovine neutrophils. A reverse peptide, Rev4 (AAY92796) of indolicidin was found to have increased
                                                                                                                                                                                                                                                                                                                                                                                              administered to, or produced by a plant comprise indolicin or functional equivalents
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Everett NP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-OCT-1998;
02-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Magainin; antimicrobial; transgenic plant; protease degradation; indolicidin; protein production; reverse peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY92794;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY92794 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-AUG-2000
                                                                                                                                                                                                                    useful for production of agronomically important proteins
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                                                                                                                  Н
                                                                                                                                           l Similarity
13; Conser
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                                                                                                                 ILPWKWPWWPWRR 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antimicrobial
                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Li Q,
                                                                                                                                                                                       AA;
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98US-0106537.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US25561
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                                                                                                                                                                                                                                                                                                                                                                            50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptide;
                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lawrence C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         peptide,
                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13
                                                                                                                                                Score 99; DB 21;
Pred. No. 9.8e-07;
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                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Davies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        indolicidin.
                                                                                                                                                            Length 13;
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RESULT 8
AAY91771
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                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                  Cationic peptide; tumour; pharmaceutical composition; cancer; treatment; leukaemia; polyoxyalkylene-modified; APO; lymphoma; multiple myeloma; breast; lung; ovary; cervix; uterus; skin; prostate; liver; colon; multidrug resistance.
                                                                                                                                                                                                                                                                                                                                                                                                                                            This sequence represents a cationic peptide amino acid sequence, which can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                              Synthetic
                                                                                                                                                         Amino acid sequence of cationic peptide MBI 10.
                                                                                                                                                                                        06-JUN-2000
                                                                                                                                                                                                                  AAY91771;
                                                                                                                                                                                                                                         AAY91771 standard; Peptide; 13
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 11; 94pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Friedland HD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cationic peptide;
leukaemia; polyoxy
breast; lung; ovar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MICR-) MICROLOGIX BIOTECH
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                                                                                                                                                                                                                                                                                                                                                                  l Similarity
13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                        13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               eptide; tumour; pharmaceutical composition; cancer; treatment;
polyoxyalkylene-modified; APO; lymphoma; multiple myeloma;
ng; ovary; cervix; uterus; skin; prostate; liver; colon;
                                                                                                                                                                                                                                                                                                                                                               100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                     (first entry)
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                                                                                                                                                                                                                                                                                                                                                                            Score 99; DB 21;
Pred. No. 9.8e-07;
                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Erfle D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          optionally activated useful for treating
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                                                                                                                                                                                                                                                                                                                                                                                         Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     treating tumours
                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           West MHP;
                                                                                                                                                                                                                                                                                                                                                              Gaps
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WO9965506-A2

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RRESULT 9
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AAX991730
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AAX9730
AAX97
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Best Local S
Matches 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cationic peptide; tumour; pharmaceutical leukaemia; polyoxyalkylene-modified; APO breast; lung; ovary; cervix; uterus; skii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO)-modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel pharmaceutical composition containing polyoxyalkylene-modified cationic peptides,
                                                                                                                                                                                                                                                                                                                                               23-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                            WO9965506-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           multidrug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Amino acid sequence of cationic peptide MBI 10CN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY91772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY91772 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Friedland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-JUN-1998;
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                                                              Novel pharmaceutical composition polyoxyalkylene-modified cationic
                                                                                                                                                                          Friedland
                                                                                                                                                                                                                                                               12-JUN-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MICR-) MICROLOGIX BIOTECH
                                                                                                                                                                                                                  (MICR-) MICROLOGIX BIOTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence represents a cationic peptide amino acid sequence,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ung; ovary; cervix; uterus; skin; prostate; liver; colon; resistance.
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                                                                                                                                                                       Krieger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0096541.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide;
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                                                                                                                                                                       ŢJ,
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                                                                cationic
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                                                                                                                                                                       Taylor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 99;
Pred. No.
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                                                                                  containing
                                                              peptides,
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                                                                                                                                                                       R,
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. 9.8e-07;
ches 0;
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                                                                                                                                                                       Erfle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       composition;
                                                              optionally useful for
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                                                                                                                                                                       Fraser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer; treatment;
                                                              treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     activated treating t
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                                                                                                                                                                       JR,
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                                                                                                                                                                       West MHP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                tumours
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Disclosure; Page 14; 94pp; English

The patent discloses crosslinked analogs of indolicidin (Indol 1-13) which is a naturally occurring peptide isolated from bovine neutroph and has antimicrobial activity. The crosslinked indolicidin (x-indolicidin) analogs are stable and have antimicrobial activity

negative bacteria

(e.g.

Staphylococcus aureus

neutrophils

against gram positive and

Crosslinked indolicidin analogs with antimicrobial activity against bacteria, yeast, fungi, protozoa and viruses .

Claim 3; Page 39;

53pp; English.

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XSSSSSSSSSSXXX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     can be used in the pharmaceutical composition of the invention. The invention relates to a pharmaceutical composition containing at least one activated polyoxyalkylene (APO) modified cationic peptide. The modification of peptides with APO increases their activity against tumour cells, including those with a multidrug resistant phenotype. The pharmaceutical composition can be used to treat tumours, specifically lymphoma, leukaemia, multiple myeloma, or tumours of breast, lung, ovary, cervix, uterus, skin, prostate, liver and colon.
                                                                                                                                                                                                                                                                                                                                                                                                            HIV-1; gram positive bacteria; gram negative; Staphylococcus aureus; Escherichia coli; Salmonella typhimurium; yeast; fungi; protozoa; Candida albicans; Cryptococcus neoformans; Giardia; Acanthamoeba.
                                                                                                                                                                                                                                                                                                                                                                                                                                             stability; bovine neutrophil; antimicrobial; antibacterial; fung protozoacide; virucide; anti-HIV; human immunodeficiency virus-l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Crosslink-stabilised indolicidin analog Indol 1-13(W6/9).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY44666 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
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                                                                                                                                                                                                                        20-MAY-1999;
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                                                                                                                                                                                                                                                                                                    Modified-site
                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Crosslinked indolicidin analog; x-indolicidin; Indol 1-13(W6/9);
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY44666;
                                                                                                                                                                          (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                  18-JUN-1998;
                                                                                                                                                                                                                                                                     WO9965510-A1
                                                                                                                                                                                                                                                                                                                                        Modified-site
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence represents a cationic peptide amino acid sequence,
                                                                                                                           2000-147133/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 ILPWKWPWWPWRR 13
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                                                                                                                                                    ME,
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                                                                                                                                                 Osapay K;
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                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers 6..9
                                                                                                                                                                                                                                                                                                                 di-tryptophan
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                                                                                                                                                                                                                                                                                                                            /note= "Residues at positions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               peptide;
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                                                                                                                                                                                                                                                                                           "C-terminal
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                                                                                                                                                                                                                                                                                                               crosslink"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 99;
Pred. No.
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                                                                                                                                                                                                                                                                                           amide"
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hes 0;
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Matches
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Query Match
Best Local Similarity
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They can be used for reducing or inhibiting the growth or survival ometroorganisms in an environment e.g. a food or food product, a solution, an inanimate object comprising a surface, or a mammal. The present sequence is a specifically claimed x-indolicidin analog, Indol 1-13(W6/9) which contains a di-tryptophan crosslink.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   purF gene; glutamine pyrophosphoribosyl pyrophosphate amidotransferase; purF derivative; fusion partner; antimicrobial peptide; Indolloidin; mass production; cleavage site; hydroxylamine; CNBr; DNA construct; cow neutralise; toxicity; pharmaceutical industry; food industry.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY44324 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Antimicrobial peptide,
                                                                 The present amino acid sequence is an antimicrobial peptide, Indolicidin derived from cow, Bos taurus. It is used along with a derivative of purF gene sequence that functions as a fusion partner. A DNA construct that comprises, this antimicrobial peptide encoding sequence and the entire, partial or derivative of purF gene, is used for mass production of the antimicrobial peptide in microorganisms without killing the host cells. Use of the purF gene derivative sequence, neutralises the toxicity of the antimicrobial peptides against the host microorganism. The antimicrobial peptides are useful commercially in the pharmaceutical and food industries.
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14-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                  Kim JH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-JUN-1999;
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                                                                                                                                                                                                                                  Claim 1; Fig 1; 67pp; English.
                                                                                                                                                                                                                                                                                                                                                                              (SAMY-)
                                          Sequence
                                                                                                                                                                                                                                                                          New DNA constructs useful for mass
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                                                                                                                                                                                                                                                            microorganism hosts
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99KR-0017920.
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                                                                                                                                                                                                                                                                                                                                                     Lee J,
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Pred.
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                                                                                                                                                                                                                                                                                                                                                       HS,
                                                                                                                                                                                                                                                                              production
    . 99;
No.
                                                                                                                                                                                                                                                                                                                                                         Lee
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9.8e-07;
      DB 21;
9.8e-07;
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                                                                                                                                                                                                                                                                                 of antimicrobial
                                                                                                                                                                                                                                                                                                                                                          Hong
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                  Length 13;
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                                                                                                                                                                                                                                                                                                                                                            Lee
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                                                                                                                                                                                                                                                                                    peptides
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RESULT 12
AAY55056
ID AAY55
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                                                                                                                    CC The invention relates to a method for inhibiting growth of CC sulphate-reducing bacteria (A) on a matterial (B) sensitive to corrosion CC sulphate-reducing bacteria (A) on a matterial (B) sensitive to corrosion CC degradation, by applying to (B) a bacterium (C) that secretes a CC compound (I) able to inhibit growth of (A). The method is used to protect CC compound (I) able to inhibit growth of (A). The method is used to protect compound (I) able to inhibit growth of (A). The method is used to protect compound (I) able to inhibit in the protect dental implants. (B) is present in an open or CC closed system (e.g. water cooling tower, liquid storage container, fuel CC closed system (e.g. water cooling tower, part of a bridge or other CC tank, sewer or drainage system etc.) or part of a bridge or other CC tank, sewer or drainage system etc.) or part of a bridge or other CC methods for inhibiting (A), and reduces the amount of toxic chemicals CC released. Conventional biofilms of aerobic organisms tend to encourage CC growth of (A), and addition of (C) to the biofilm prevents this. A CC compound of (A), and addition of (C) to the biofilm prevents this. A CC conventional biocides of aerobic organisms tend to encourage container organisms (this effect includes reducing resistance of CC (A) to conventional biocides, which may then be used in reduced container. If local damage to the biofilm occurs, the underlying areas.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
Ş
                               Query Match
Best Local S
Matches 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-MAY-1998;
31-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bacillus sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indolicidin; bactenecin; sulphate-reducing bacteria; growth inhibitor;
corrosion; degradation; metal; concrete; cement; dental implant; biofilm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Non-amidated indolicidin peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Inhibiting growth of sulphate-reducing bacteria using other bacteria, particularly for protection of metals and concrete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 4; Page 41; 84pp; English.
                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13;
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                                 1 Similarity
13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ILPWKWPWWPWRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Jayaraman A,
     ILPWKWPWWPWRR 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0074037
99US-0282277
                                                                                                AA;
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                                                       . 0%;
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                                        0;
                                      Score 99; DB
Pred. No. 9.8
); Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JC;
                                                        9.8e-07;
                                                                           DB 21;
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                                                                       Length 13;
                                             Indels
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                                             Gaps
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RESULT 13
AAY57123
provided that if Xaal is present, Xaa8 = Hse, Met or Met-Xaa9-Met;

CC and further provided that: if Xaa2 is absent, Xaal is absent; if Xaa3 is

Ca absent, Xaal and Xaa2 are absent; if Xaa4 is absent, Xaa1, Xaa2 and Xaa3

CC are absent, and if Xaa5 is absent, Xaa1, Xaa2, Xaa3 and Xaa4 are absent.

CC The indolicidin analogues can be used to create a fusion polypeptide

CC consisting of the analogue linked to a peptide. The indolicidin

CC analogues have antimicrobial activity against gram positive bacteria,

CC gram negative bacteria, yeast, fungus, protozoa and viruses (e.g. HIV-1).

CC preducing or inhibiting growth or survival of a microorganism. They can be

CC used for treating infections. They can also be included in a liquid such

CC as water or an aqueous solution, e.g. contact lens solution. The

CC analogues have potential uses in food products, and in objects such as

CC the surface of an instrument used to prepare food or to perform surgery.

CC Transgenic plants or animals useful in the food industry can be produced

CC into the Germilian Call of Each Create and contacting an indolicidin analogue
                                                                                                                                                                                                                                                                                                                Xaa5 = Arg, Lys or absent;
Xaa6 = Trp or Phe;
Xaa7 = Arg, Lys or absent;
Xaa8 = homoserine (Hse), Met, Met
Xaa9 = at least one amino acid;
provided that if Xaa1 is present.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This sequence is a naturally occurring indolicidin peptide. Peptides AAY57109-Y57138 and AAY57143-Y57144s are new indolicidin ranalogues, which have a homoserine residue and/or a truncated amino terminal region. The analogues have the following amino acid sequence: Xaa1-Xaa2-Xaa3-Xaa4-Xaa5-Xaa6-Pro-Xaa6-Pro-Xaa6-Pro-Xaa6-Xaa7-Xaa8
                                                                                                                                                                                                                                                                                                                                                                                                                                         Xaal = Ile, Leu, Val, Ala,
Xaa2 = Ile, Leu, Val, Ala,
Xaa3 = Pro or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indolicidin analogue; antimicrobial activity; helminth; bacteria; virus; treatment; inhibit growth; micro-organism; contact lens solution; transgenic plant; surgical instrument; yeast; fungi; protozoa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Key
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                                                                                                                                                                                                                                                                                                                                                                                                                     Xaa4 = Trp, Phe or absent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; Page 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protozoa and virus, used for, e.g. treating infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-FEB-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       indolicidin analogues, active against bacteria, yeast,
                                 germline
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "C-terminal amide"
                                 cells of such organisms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gly
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                                                                                                                                                                                                                                                                                                                                                     Met-Xaa9-Met or absent, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                           or absent; or absent;
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Sequence

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RESULT 14
ABP60382
ID ABP60
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The invention relates to an ophthalmic composition (I) for storing, cleaning, or disinfecting a contact lens, comprising an indolicidin antimicrobial peptide and a buffer having a halide ion concentration less than 0.85 weight%, based on the total weight of (I) or Good's buffer. (I) is a multipurpose solution for care of a contact lens and is suitable for contact lens disinfection, storage, cleaning, conditioning, rehydrating, moistening and lubricating. (I) is useful for disinfecting the contact lens or contact lens storage vessel such as contact lens vial, contact lens case or a contact lens shipping package by contacting the lens or vessel with a disinfecting solution comprising (I). (I) is useful for packaging a contact lens involving sealing the lens in a container with (I), where the contact lens is not autoclaved. (I) reduces the number of pseudomonas aeruginosa, Staphylococcus aureus and Serratia marcescens
                                                                                                                                                                                                                                                                                                                                                                            Ophthalmic composition for storing, cleaning, or disinfecting contailens, comprises indolicidin, and buffer having specified halide ion
                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indolicidin; ophthalmic; disinfection; contact lens; antimicrobial; Pseudomonas aeruginosa; Staphylococcus aureus; Serratia marcescens; Candida albicans; Fusarium solani.
                                                                                                                                                                                                                                                                                                                    Claim 15;
                                                                                                                                                                                                                                                                                                                                                             concentration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tuse D,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                             2001-080322/09
                                                                                                                                                                                                                                                                                                                                                           comprises indolicidin, autration or Good's buffer
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SRI INT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mortelmans K,
                                                                                                                                                                                                                                                                                                                    Page 68; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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Pred. No.
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9.8e-07;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chapoy LL,
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RESULT 15
ABP60383
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             albicans and Fusarium solani by 1.0 log or more within 18 hours. (I) is self-preserving and requires no additional preservatives or self-preserving and requires no additional preservatives or self-preserving since indolicidins are safe for topical application to the eye, (I) enables immediate application of the contact lens to the eye without the need for neutralisation, deactivation or washing any of the components of (I). The present sequence is that of an indolicidin peptide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                             (LARG-) LARGE SCALE BIOLOGY
(STRI ) SRI INT.
(REGC ) UNIV CALLFORNIA.
(WESL-) WESLEY-JESSEN CORP.
(TUSE/) TUSE D.
(MORT/) MORTELMANS K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABP60383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABP60383 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indolicidin peptide SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indolicidin; ophthalmic; disinfection; contact lens; antimicrobial; pseudomonas aeruginosa; Staphylococcus aureus; Serratia marcescens; Candida albicans; Fusarium solani.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                          30-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Modified-site
                                                                                                                                                                                                                                                                                                                                                                                 23-MAY-2000; 2000WO-US14608
                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200071175-A1
                                                                                                                                                                                                                                                                                                                                                        25-may-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
The invention relates to an ophthalmic composition (I) for storing, cleaning, or disinfecting a contact lens, comprising an indolicidin antimicrobial peptide and a buffer having a halide ion concentration less than 0.85 weight%, based on the total weight of (I) or Good's buffer. (I) is a multipurpose solution for care of a contact lens and is suitable for
                                                                                                    ophthalmic composition for storing, cleaning, clens, comprises indolicidin, and buffer having concentration or Good's buffer -
                                                                                                                                                           WPI;
                                                                                                                                                                                                                          (HOKA/)
(SELS/)
(CHAP/)
                                                                                                                                                                                     Tuse
                                                                               Disclosure;
                                                                                                                                                                                                             (QUIN/)
                                                                                                                                                            2001-080322/09.
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                                                                                                                                                                                                            MORTELMANS K.
HOKAMA L A.
SELSTED M E.
CHAPOY L L.
QUINN M H.
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                                                                                                                                                                                     Mortelmans K,
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                                                                                 Page 16; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                         99US-0318195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "C-terminal OH"
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Pred. No. 9.8e-07;
Mismatches 0;
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g specified halide ion
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contact lens disinfection, storage, cleaning, conditioning, rehydrating, comistening and lubricating. (I) is useful for disinfecting the contact lens or contact lens storage vessel such as contact lens vial, contact clens case or a contact lens shipping package by contacting the lens or cotton contact lens involving scaling the lens in a container with copackaging a contact lens involving scaling the lens in a container with copackaging a contact lens involving scaling the lens in a container with copackaging a contact lens is not autoclaved. (I) reduces the number of copackaging as contact lens is not autoclaved. (I) reduces the number of copackaging and scaling states and servatia marcescens copacities and scaling states and servatian marcescens copacities and fusarium solani by 1.0 log or more within 18 hours. (I) is contact and requires no additional preservatives or components. Since indolicidins are safe for topical application to the eye copacities. (I) enables immediate application of the contact lens to the eye components of (I). The present sequence is that of an indolicidin peptide contact interestical sequence is that of an indolicidin peptide components of (I). The present sequence is that of an indolicidin peptide contact interestical sequence is that of an indolicidin peptide contact interestical sequence is that of an indolicidin peptide components of (I).
                    search completed: October
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Job time : 78
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13; Conserv
                                                                                                                                            1 ILPWKWPWWPWRR 13
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                                      2003, 10:01:28
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Pred. No.
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                                                                                                                                                                                                                                                             DB 22;
                                                                                                                                                                                                                                                        Length 13;
                                                                                                                                                                                                                  Indels
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OM protein - protein search, using sw model

GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.

Run on: October 2, 2003, 09:59:37; Search time 41 Seconds (without alignments) 30.493 Million cell updates/sec

ritle:
Perfect score:
Sequence: US-09-444-281-85 99 1 ILPWKWPWWPWRR 13

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters:

283308

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : pIR_76:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	œ	7	6	Ç	4	ω	2	1	No.	Result
47	47	47	47	47	47	47	47	47	48	48	48	48.5	49	49	49	49.5	50	50	50	50.5	51	51	51	53	53	53.5	54	99	Score	
47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	48.5	48.5	48.5	49.0		49.5	9	Ò	0	50.5	0	51.0	51.5	51.5	51.5	53.5	53.5	54.0	54.5	100.0	Match	Query
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T09951	T09861	T11291	T11184	T11538	E90618	S08424	S68132	PWXL8	AF2107	AH0755	T11105	T29295	E89605	E84631	A56547	T03562	JT0751	G95922	B72392	T28234	I38935	AC1927	E90626	T41758	E72851	T12505	VGIHHC	JC1222	IB	
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R;Raabe, T.; Schelle-Prinz, B.; Siddell, S.G. J. Gen. Virol. 71, 1065-1073, 1990

ALIGNMENTS

0;

Gaps

0;

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ACONF-13 protein - Autographa californica nuclear polyhedrosis virus C.Species: Autographa californica nuclear polyhedrosis virus, AcMNPV A;Note: dsDNA virus hatcornica nuclear polyhedrosis virus, AcMNPV C;Date: 12-Nov-1999 #sequence_revision 12-Nov-1999 #text_change 12-Nov-1999 C;Accession: E72851 R;Ayres, M.D.; Howard, S.C.; Kuzio, J.; Lopez-Ferber, M.; Possee, R.D. Virology 202, 586-605, 1994 A;Title: The complete DNA sequence of Autographa californica nuclear polyhedrosis virus. A;Reference number: A72850; MUID:94303173; PMID:8030224 A;Accession: E72851 A;Status: preliminary A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Reference number: Z17527
A; A; Accession: T12505
A; Status.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: mRNA
A; Residues: 1159-1173 <ARA>>
A; Cross-references: EMBL:X15654; NID:g58921; PIDN:CAA33680.1; PID:g1334827
C; Superfamily: coronavirus E2 glycoprotein
C; Keywords: glycoprotein; transmembrane protein
E; I-15/Domain: signal sequence #status predicted <SIG>
F; I-15-1173/Product: E2 glycoprotein #status predicted <MAT>
F; 1116-1138/Domain: transmembrane #status predicted <TMN>
F; 23,62,98,147,171,176,220,243,326,333,440,464,518,538,542,568,581,587,663,671,930,1015,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Residues: 1-1173 < RAA>
A; Cross references: EMBL:X16816; NID:g58926; PIDN:CAA34723.1; PID:g58927
A; Experimental source: strain 229E
R; Raabe, T; Siddell, S.
Nucleic Acids Res. 17, 6387, 1989
A; Title: Nucleotide sequence of the human coronavirus HCV 229E mRNA 4 and A; Reference number: A34038; MUID:89366667; PMID:2701946
A; Accession: S05460
A; Status: translation not shown
                                                                                                                                                                                                                                                                 RESULT
E72851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNĀ
A; Residues: 1-299 < ANS>
A; Cross-references: EMBL; AL096753
A; Experimental source: adult testis; clone DKFZp434C192
C; Genetics:
A; Note: DKFZp434C192.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical protein DKFZp434C192.1 - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 23-Ju1-1999 #sequence_revision 23-Ju1-1999 #text_change 23-Ju1-1999
C;Accession: T12505
R;Ansorge, W.; Wirkner, U.; Mewes, H.W.; Gassenhuber, J.; Wiemann, S.
submitted to the Protein Sequence Database, June 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
T12505
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A;Accession: A34766
A;Molecule type: mRNA
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No. 6.
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R;Gomi, S.; Majima, K.; Maeda, S.
J. Gen. Virol. 80, 1323-1337, 1999
A;Title: Sequence analysis of the genome of Bombyx mori nucleopolyhedrovirus.
A;Reference number: Z22020; MUID:99281911; PMID:10355780
A;Accession: T41758
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E90626
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C;Date: 03-Dec:1999 #sequence_revision 03-Dec-1999 #text_change 21-Jul-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Residues: 1-327 <AYR>
A; Cross-references: GB:1
C; Genetics:
A; Gene: AcOrf-13
                                 멍
                                                                                                                                                                                                                                            A; Genome: mitochondrion
A; Genetic code: SGC1
                                                                                                                                                                                                                                                                                                                                                     A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-55 <KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: A99613; A; Accession: E90626
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Proc. R. Soc. Lond. B Biol. Sci. 268
A; Title: Complete mitochondrial DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATP synthase F0 chain 8 [imported] - Eudromia elegans mitochondrion C;Species: mitochondrion Eudromia elegans C;Date: 15-Jun-2001 #sequence_revision 15-Jun-2001 #text_change 17-May-2002 C;Date: 15-Jun-2001 #sequence_revision 15-Jun-2001 #text_change 17-May-2002 C;Accession: E90626
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-331 < KAM>
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                                                                                                                                                                                                      C; Keywords: mitochondrion
                                                                                                                                                                                                                           C; Superfamily: H+-transporting
                                                                                                                                                                                                                                                                                         A; Gene: ATP8
                                                                                                                                                                                                                                                                                                               C; Genetics
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R; Haddrath, O.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Accession:
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nes 6; Conser
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6; Conser
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                                 LPWSWPW
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                                                                                                                                                                                                                             ATP
                                                                                                                    Score 51; DB 2
Pred. No. 2.5;
0; Mismatches
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Pred.
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8.1;
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PID:g3745840

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Gaps

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N;Contains: protein kinase (EC 2.7.1.37)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Accession: 138935; 155438; I37209
C;Accession: 138935; 155438; I37209
R;Kawabata, M.; Chytil, A.; Moses, H.L.
J. Biol. Chem. 270, 5625-5630, 1995
A;Title: Cloning of a novel type II serine/threonine kinase receptor through interaction A;Reference number: A55947; MUID:95197572; PMID:7890683
  A;Map position: 20pter-20qter
C;Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases;
C;Keywords: ATP; glycoprotein; phosphotransferase; receptor; transm
F;1-26/Domain: signal sequence #status predicted <SIG>
F;27-1038/Product: bone morphogenetic protein receptor II #status p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: mRNA
A; Residues: 1-1038 < KAW>
A; Residues: 1-1038 < KAW>
A; Residues: 1-1038 < KAW>
A; Cross references: EMBL:U20165; NID:g704361; PIDN:AAC50105.1; PID:g704362
A; Cross references: EMBL:U20165; NID:g704361; PIDN:AAC50105.1; PID:g704362
R; Nohno, T.; Ishikawa, T.; Saito, T.; Hosokawa, K.; Noji, S.; Wolsing, D.H.
J. Biol. Chem. 270, 22528-22526, 1995
A; Title: Identification of a human type II receptor for bone morphogenetic
A; Reference number: I55438; MUID:95403457; PMID:7673243
A; Accession: I55438
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A:Molecule type: DNA
A:Molecule type: DNA
A:Residues: 1-689 <KUR>
A:Cross references: GB:BA000019; PIDN:BAB72923.1;
A:Experimental source: strain PCC 7120
C:Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yas
DNA Res. 8, 205-213, 2001
A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing
A;Reference number: AB1807; MUID:21595285; PMID:11759840
A;Accession: AC1927
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C:Species: Nostoc sp. PCC 7120
A:Note: Nostoc sp. strain PCC 7120 is a synonym of !
C:Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 i
C:Accession: AC1927
R:Kanako, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.;
                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-827, 'R', 829-1038 <ROS>
A; Cross references: EMBL: 248923; NID
                                                                                                                                                                                                                                                                                                                        A:Cross-references: GB:D50516; NID:g807712; PIDN:BAA09094.1; PID:g807713
R:ROSSENZWEİG, B.L.; Imamura, T.; Okadome, T.; Cox, G.N.; Yamashita, H.; ten Dijke, P.; i Proc. Natl. Acad. Sci. U.S.A. 92, 7632-7636, 1995
A;Title: Cloning and characterization of a human type II receptor for bone morphogenetic A;Reference number: I37209; MUID:95372334; PMID:7644468
A;Accession: I37209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bone morphogenetic protein receptor II precursor - N;Alternate names: activin receptor-like kinase typ N;Contains: protein kinase (EC 2.7.1.37)
                                                                                                                                A;Gene: GDB:BMPR2; BRK-3; T-ALK; BMPR3; BMPR-II
A;Cross-references: GDB:642243; OMIM:600799
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A; Residues: 1-1038 < NOH>
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55.6%;
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Pred. No.
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kinase type II;
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                                                  protein kinases; protein kinase homol receptor; transmembrane protein
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09-Dec-2002
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predicted <MAT>
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RESULT 9
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A;Title: The genome of Melanoplus sanguinipes entomopoxvirus A;Reference number: Z20484; MUID:99102612; PMID:9847359
A;Accession: T28234
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                                                                                                                                                                                                                                                 A; Title: Evidence for lateral gene transfer between Archaea A; Reference number: A72200; MUID:99287316; PMID:10360571 A; Accession: B72392
                                                                                                                                                                                                                                                                                                                                                                                 C;Species: Thermotoga maritima
C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999
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A; Residues: 1-970 <AFO>
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C;Date: 21-Jan-2000 #sequence_revision 21-Jan-2000 #text_change 21-Jul-2000
                                                                                                                                                                                               A; Molecule type: DNA
A; Residues: 1-83 <ARN>
                                                                                                                                                                                                                                                                                                                                 Garrett, M.M.; Stewart, A.M.; Cotton,
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                                                                                                                               A; Gene:
                                                                                                                                                              A; Experimental source: strain
                                                                                                                                                                                A; Cross-references: GB:AE001713; GB:AE000512;
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                                                                                                                                                                                                                                                                                                    Nature 399, 323-329, 1999
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                                                                                                                                                                                                                                                                                                                                                                                                                hypothetical protein - Thermotoga maritima (strain MSB8)
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5; Conserv
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WSWGFWPW
                               WKWPWWPW
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    Melanoplus sanguinipes entomopoxvirus

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Pred.
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Pred. No. 44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 50.
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                                                              core 50; DB ced. No. 4.9; Mismatches
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47;
he
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; Pratt, M.S.;
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                                                                                                                                                                                NID:g4980809; PIDN:AAD35403.1; PID:g498
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                                                                                             Length 83
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ferredoxin-NADP reductase (EC 1.18.1.2), long form precursor - bovine
N;Alternate names: adrenodoxin reductase
C;Species: Bos primispenius taurus (cattle)
C;Date: 14-Jul-1994 #sequence_revision 18-oct-1996 #text_change 03-Jun-2002
C;Date: 14-Jul-1994 #sequence_revision JR-0558; PS0003; A29604; S52100
R;Takata, Y; Sagara, Y; Kono, A.; Sekimizu, K.; Horiuchi, T.
Biol. pharm. Bull. 16, 1200-1206, 1993
A;Title: Gene structure of bovine adrenodoxin reductase.
A;Reference number: JT0751; MUID:94177140; PMID:8130767
A;Accession: JT0751; MUID:94177140; PMID:8130767
A;Accession: JT0973; MUID:94177140; PMID:8130767
A;Accession: JT0975; MUID:94177140; PMID:8130767
A;Accession: JT0975; MUID:94177140; PMID:8130767
A;Accession: JT0979; MUID:94177140; PMID:8130767
A;Accession: JT0979; MUID:94177140; PMID:8130767
A;Reference number: JT0979; MUID:9119916; PIDN:BAA11921.1; PID:94521308
A;Reference number: JT0979; MUID:9119916; PMID:3448086
A;Accession: JT0979; MUID:9119916; PMID:3448086
A;Reference number: JT0979; MUID:8198050; PMID:3448086
A;Accession: JT0979; MUID:8198050; PMID:3448086
A;Accession: JT0979; MUID:8198050; PMID:34800150.1; PID:9217434
A;Note: the deduced sequence is partially confirmed by amino acid sequencing of R;Sagara, Y:
Submilted to DDBJ, September 1989
A;Accession: JT09390
A;Molecule type: mRNA
A;Accession: JS0390
A;Molecule type
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A:Title: The complete sequence of the 1,683-kb pSymB megaplasmid A; Reference number: A95842; MUID:21396508; PMID:11481431
A; Accession: G95922
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A;Authors: Kahn, D.; Kahn, M.L.; Kalman, S.; Keating, D.H.; Kiss, E.; Komp, hebault, P.; Vandenbol, M.; Vorholter, F.J.; Weidner, S.; Wells, D.H.; Wong, A;Title: The composite genome of the legume symbiont Sinorhizobium meliloti. A;Reference number: A96039; MUID:21368234; PMID:11474104
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R; Finan, T.M.; Weid
Proc. Natl. Acad. S
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C;Species: Sinorhizobium meliloti
C;Date: 24-Aug-2001 #sequence_revision 24-Aug-2001 #text_change 30-Sep-2001
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C;Genetics:
A;Gene: SMb21068
A;Genome: plasmid
                                A; Molecule type: mRNA
A; Residues: 56-498 < SA2>
R; Hanukoglu, I.; Gutfinger, T.
Eur. J. Biochem. 180, 479-484,
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   A; Title:
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Best Local
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sequence
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      adrenodoxin
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Pred.
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Mismatches
      reductase.
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D.H.; Wong, K.;
                                                                                                                                                                                                                                                                                                                  sequencing
      NADP-binding
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N.A.; Fisher, R.F.
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      sites
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A; Residues: 1-296 <VI
A; Cross-references: E
C; Genetics:
A; Map position: 1
C; Superfamily: hypoth
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Biochim. Biophys. Acta 1246, 39-46, 1995
A;Title: Structural and functional characterization of J
A;Reference number: S52100; MUID:95110846; PMID:7811729
A;Accession: S52100
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R;Hamamoto, I.; Kurokohchi, K.; Tanaka, S.; Ichikawa, Y.
Biochim. Biophys. Acta 953, 207-213, 1988.
A;Title: Adrenoferredoxin-binding peptide of NADPH-adrenoferredoxin
A;Reference number: PS0003; MUID:88184054; PMID:3355838
A;Accession: PS0003
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                                                                                                                                                                                                R.Vlcek, C.; Paces, V.; Maltsev, N.; Paces, J.; Haselkor proc. Natl. Acad. Sci. U.S.A. 94, 9384-9388, 1997
A;Title: Sequence of a 189-kb segment of the chromosome A; Reference number: Z14955; MUID:97404404; PMID:9256491
A; Accession: T03562
                                                                                                                                                                                                                                                                                                                                                                            conserved hypothetical protein - Rhodobacter capsulatus
.C;Species: Rhodobacter capsulatus
.C;Date: 24-Mar-1999 #sequence_revision 24-Mar-1999 #text_change 02-Aug-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
T03562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Keywords: alternative splicing; flavoprotein; mitochondrion; monomer; NADP; o: f;1-33/Domain: transit peptide (mitochondrion) #status predicted <SIG> F;33-498/Product: ferredoxin·NADP+ reductase, long form #status predicted <MAT> F;33-204, 211-498/Product: ferredoxin·NADP+ reductase, short form #status expering;40-70/Region: beta-alpha-beta FAD nucleotide-binding fold F;180-190/Region: NADP binding #status predicted
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A;Residues: 1-76, 'r',78-80, 'VWLALTTPRSRMLL',95-123,'RVYRLT',129-204,211-273,'R',275-3
A;Cross-references: GB:M17029; NID:g162628; PIDN:AAA30362.1; PID:g162629
A;Experimental source: adrenal cortex
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A; Cross-references: EMBL:X13736; NID:g65;
                                                                                                                    A;Status: preliminary; translated from A;Molecule type: DNA A;Residues: 1-296 <VLC>
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R;Vlcek, C.; Paces,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Description: catalyzes the reversible reduction of NADP+ by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C; Function:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Introns: 27/1; 59/3; 91/3; 132/3; 170/3; 204/3; 246/3; 275/1; 341/3;
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                                                                                        EMBL:AF010496; NID:g3128256; PIDN:AAC16215.1; PID:g3128363
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28;
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                                                                                                                                                                                                                                                                                                                                 Haselkorn,
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A;Introns: 44/1
C;Keywords: neuropeptide
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-60/Product: sex-peptide #status experimental <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R:Schmidt, T.; Choffat, Y.; Schneider, M.; Hunziker, P.; Fuyama, Y.; Kubli, E. Insect Biochem. Mol. Biol. 23, 571-579, 1993
A;Title: Drosophila suzukii contains a peptide homologous to the Drosophila melanogaster A;Reference number: A56547; MUID:93357785; PMID:8353518
A;Accession: A56547
                                                                 A:Gene: At2g24010
A:Map position: 2
C:Superfamily: serine carboxypeptidase
                                                                                                                                                                                                                                                                    A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana A;Reference number: A84420; MUID:20083487; PMID:10617197 A;Accession: E84631
                                                                                                                                                                                                                                                                                                                                          R:Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.; M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon, Leuss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter, Nature 402, 761-768, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                     probable serine carboxypeptidase II [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 16-Feb-2001
C;Accession: E84631
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A;Gene: FlyBase:Dsuz/SP
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A;Residues: 20-60 <SC2>
A;Note: sequence modified after extraction from NCBI backbone
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A; Residues: 1-425 <STO>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Drosophila suzukii
C;Date: 21-Jul-1995 #sequence_
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first 45 summaries
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           EMBL; X67340; CAA47755.1; -.

PIR; JC1222; JC1222.

PDB; 1686; 17-JAN-01.

PDB; 1HR1; 31-DEC-02.

Interpro; IPR001894; Cathelicidin.

Pfam; PF00666; Cathelicidins; 1.

ProDom; PD001838; Cathelicidin; 1.

PROSITE; PS00946; CATHELICIDINS_1; 1.

PROSITE; PS00947; CATHELICIDINS_2; 1.

Antiblotic; Amidation; Signal; Pyrrol
3D-structure.
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- BOVIN

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TISSUE=Bone marrow;
MEDLINE=92392368; PubMed=1520337;
MEDLINE=92392368; PubMed=1520337;
del Sal G., Storici P., Schneider C., Romeo D., Zanetti M.;
del Sal G., Storici P., Schneider C., Romeo D., Zanetti M.;
"CDNA cloning of the neutrophil bactericidal peptide indolicidin.";
"CDNA cloning of the neutrophil bactericidal peptide indolicidin.";
                                                                                                                                                                                                                                                use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=Neutrophils; MEDLINE=92165771; PubMed=1537821;
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Bovidae; Bovinae; Bos.
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Eukaryota; Metazoa;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    J. Biol. Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     neutrophils.";
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FUNCTION: POTENT MICROBICIOAL ACTIVITY, ACTIVE AGAINST STAPHYLOCOCCUS AUREUS AND ESCHERICHIA COLI.

TISSUE SPECIFICITY: LARGE GRANULES OF NEUTROPHILS.

PTM: ELASTASE MIGHT BE RESPONSIBLE FOR ITS MATURATION.
SIMILARITY: BELONGS TO THE CATHELICIDIN FAMILY.
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Last annotation update)
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YA03_RHILO
BRB1_RAT
NHG1_PSEPU
ACES_BUNEA
E78A_DROME
CN3B_RAT
VGL2_IBVB
VGL2_IBVB
VGL2_IBVB
VGL2_IBVB
 POTENTIAL
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                                   Pyrrolidone carboxylic acid;
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Q98dm8
P97583
P23262
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Q92035
P45447
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P112722
P112723
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RANGE REPORT TO SEE THE RESULT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.

MEDILINE=90264837; PubMed=2345367;

Raabe T., Schelle-Prinz B., Siddell S.G.;

"Nucleotide sequence of the gene encoding human coronavirus HCV 229E.";

J. Gen. Virol. 71:1065-1073(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human coronavirus (strain 229E) (HCoV-2:
Viruses; ssRNA positive-strand viruses,
Coronaviridae; Coronavirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-APR-1990 (Rel. 14, Created)
01-APR-1990 (Rel. 14, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
E2 glycoprotein precursor (Spike glycoprotein)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIINE=21262210; PubMed=11369870;
Thiel V., Herold J., Schelle B., Siddell S.G.;
"Infectious RNA transcribed in vitro from a cDNA copy
coronavirus genome cloned in vaccinia virus.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q990M4;
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                                                                                      Raabe T., Sidders or,
"Nucleotide sequence of the human
5 unique regions.";
17.6387(1)
                                                                                                                                                                                                                      Hays J.P., Myint S.H.;

PCR sequencing of the spike genes of

chronologically distinct human coronav

J. Virol. Methods 75:179-193(1998).
                                                                                                                                                                                                                                                                                               SEQUENCE OF 98-1113 FROM N.A., AND STRAIN-ISOLATE ATCC VR-74 ISOLATE MEDILINE-99086140; PubMed-9870593;
                                                                                                                                                                                                                                                                                                                                                                               with human coronavirus HCOV-
Submitted (FEB-2001) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=Isolate RW Stock,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=11137;
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                                                                                                                                                                                                                                                                                                                                                                                                    "Viral and cellular changes in a human cell line persistently with human coronavirus HCoV-229E.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 98-1113 FROM N.A.,
                MEDLINE-22440020;
                                                                               Nucleic
                                                                                                                                                             SEQUENCE OF 1159-1173 FROM N.A. MEDLINE=89366667; PubMed=2701946;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Bonavia A.
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                                         INTERACTION WITH ANPEP
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; P89343;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nome cloned in vacci
82:1273-1281(2001).
    B.D.,
                    PubMed=12551991;
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      Wentworth D.E.,
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Q66174; C
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                                                                                                                       coronavirus
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A162, and
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Q990M1;
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      Talbot
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        K.V.;
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TRANSMEM DOMAIN

DOMAIN SIGNAL Coiled Pfam;

Pfam;

PF01600; Corona_S1; PF01601; Corona_S2;

Glycoprotein;

Envelope

protein;

Transmembrane;

Signal;

coil

PIR; EMBL; EMBL;

A34766; VGIHHC.

EMBL; EMBL;

InterPro; IPR002551; Corona_S1.
InterPro; IPR002552; Corona_S2.

DOMAIN DOMAIN

DOMAIN

15 1173 1115 1135 1135 1173 1173 536 547 1171 1103

E2 GLYCOPROTEIN
EXTRACELLULAR (
POTENTIAL.
CYTOPLASMIC (PI
SPIKE S1.
INTERACTION WI
SPIKE S2.

(POTENTIAL) HTIW

ANPEP

GLYCOPROTEIN

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DOMAIN

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J. Virol. 77:2530-2538(2003).
[7]
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MEDILINE=22521439; PubMed=12634402;

MEDILINE=22521439; PubMed=12634402;

Breslin J.J., Mork I., Smith M.K., Vogel L.K., Hemmila E.M.,

Bonavia A., Talbot P.J., Sjoestrom H., Noren O., Holmes K.V.;

"Human coronavirus 2298: receptor binding domain and neutralization.by

soluble receptor at 37 degrees C.";

J. Virol. 77:4435-4438(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Coronavirus spike proteins in viral Virology 279:371-374(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=21109095; PubMed=11162792;
Gallagher T.M., Buchmeier M.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the human aminopeptidase ANPEP receptor. Its asso ANPEP may lead to its conformational change that between viral and host cellular membrane. SUBUNIT: Homotrimer. During virus morphogenesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUNCTION: Structural protein that makes spikes at the surface of the virus. Determines enteropathogenicity and virulence of the virus. Initiates infection by specifically recognizing and binding the human aminopeptidase ANPEP receptor. Its association with
                                                                                                                                                                                                                                                                                                                                                                                                                                          L; X16816; CAA34723.1; -...
L; AF344160; AAC48592.1; -...
L; AF344186; AAK32188.1; -...
L; AF344187; AAK32189.1; -...
L; AF344187; AAK32190.1; -...
L; AF344189; AAK32191.1; -...
L; X09923; CAA711056.1; -...
L; Y10051; CAA71147.1; -...
L; X1052; CAA71147.1; -...
L; X1052; CAA71147.1; -...
L; X1053; CAA73680.1; -...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY: Contains 1 spike S1 domain SIMILARITY: Contains 1 spike S2 domain
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBCELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBUNIT: Homotrimer. During virus morphogenesis, it is found in a complex with M and HE proteins (By similarity). Interacts with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           European
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POLYMORPHISM: The strong variation between the strains may affect the virulence of the virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SWISS-PROT entry is copyright. It is produced through
een the Swiss Institute of Bioinformatics and the EM
EDUTOPEAN BIOINFORMATICS INSTITUTE. There are no restr
by non-profit institutions as long as its content
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01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
Hypothetical 38.7 kDa protein in px1-LEF1 intergenic region.
Autographa californica nuclear polyhedrosis virus (AcMNPV).
Viruses; dsDNA viruses, no RNA stage; Baculoviridae;
Nucleopolyhedrovirus.
NCBL_TaxID-46015;
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Y013_NPVAC
P41423;
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HUMAN
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                                                                                                                                                                                                              EMBL; L22858; AAA66643.1;
EMBL; L09723; AAA46706.1;
PIR; E72851; E72851.
Hypothetical protein.
                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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Nichols W.C.;
"Sporad:
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Lane K.B., Machado R.D., Pauciulo M.W., Thomson J.R.,
Phillips J.A. III, Loyd J.E., Nichols W.C., Trembath R.C., A
Brannon C.A., Conneally P.M., Foroud T., Fretwell N., Gaddip,
Koller D., Loyd E.J., Morgan N.V., Newman J.H., Prince M.A.,
Vilarino Gueell C., Wheeler L.;
           Machado R.D., Pauciulo M.W., Thomson J.R., Lane K. Wheeler L., Phillips J.A. III, Newman J.H., Willia Manes A., McNeil K., Yacoub M., Mikhail G., Rogers Humbert M., Donnai D., Martensson G., Tranebjaerg
                                                                                                      MEDLINE=21063176; PubMed=11115378;
                                                                                                                               AND
                                                                                                                                                                                          "Heterozygous germline mutations in BMPR2, receptor, cause familial primary pulmonary nat. Genet. 26:81-84(2000).
                                                                                                                                                                                                                                                                                                                                                                      VARIANTS PPH1 TRP-118;
MEDLINE=20428187; PubMs
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Elliott G.C.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Familial primary pulmonary hypertension (gene PPH1) is caused mutations in the bone morphogenetic protein receptor-II gene.", J. Hum. Genet. 67:737-744(2000).
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Deng Z., Morse J.H., Slager S.L., Cuervo
Kalachikov S., Cayanis E., Fischer S.G.,
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MEDLINE=95372334; PubMed=7644468;
MEDLINE=95372334; PubMed=7644468;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Sporadic primary pulmonary hypertension mutations of the gene encoding BMPR-II, a TGF-beta family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kawabata M., Chytil A., Moses H.L.; "Cloning of a novel type II serine/threonine kinase receptor through interaction with the type I transforming growth factor-beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                morphogenetic protein type I receptors.";
J. Biol. Chem. 270:22522-22526(1995).
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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hypertension.";
                                                            Lane K.B. williams
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st R.J., Hodge S.E.,
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primary pulmonary hypertension.";
Am. J. Hum. Genet. 68:92-102(2001).
-1- FUNCTION: BINDS TO BMP-7, BMP-2 AND,
BINDING IS WEAK BUT ENHANCED BY THE
                                                                                                                                                                                                                                                                                                                                                                                                      -!- SUBUNIT: HETERODIMERIZE WITH TYPE-I RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "BMPR2 haploinsufficiency as the
                                                                                                                                                                                                                                                                                                                                                                                                                                 CATALYTIC ACTIVITY: ATP +
appetite-suppressant dru
SIMILARITY: BELONGS TO T
TGFB RECEPTOR SUBFAMILY.
                                                                                                            elevated pulmonary arterial pression, right ventricular failure, and death. The disease can occur from infancy throughout life an it has a mean age at onset of 36 years. Penetrance is reduced. Although familial PPHI is rare, cases secondary to known
                                                                                                                                                                                                                            hypertension (PPH1) [MIM:178600]; a rare autosomal dominant disorder characterized by plexiform lesions of proliferating endothelial cells in pulmonary arterioles. The lesions lead
                                                                                                                                                                                                                                                                                                                                              SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: HIGHLY EXPRESSED IN HEART AND LIVER.
                                                                                                                                                                                                                                                                                                              DISEASE: Defects in BMPR2 are the cause of primary
                                                                                     etiologies are more common and include those associated with the
        drugs.
TO THE SER/THR FAMILY OF
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PRESERVATION OF THE PRESER DOMAIN CARBOHYD CARBOHYD PROSITE; PROSITE; PROSITE; VARIANT VARIANT CARBOHYL BINDING CHAIN InterPro; IPR000472; Activin_rec.
InterPro; IPR000719; Prot_kinase.
InterPro; IPR002790; Ser_thr_pkinase.
Pfam; PF01064; Activin_recp; 1.
Pfam; PF00069; pkinase; 1. GO; GO:0005887; C:integral to plasma membrane; TAS. GO; GO:0005515; F:protein binding activity; TAS. GO; GO:0007178; P:transmembrane receptor protein se MIM; 600799; MIM; 178600; EMBL; U20165; AAC50: PIR; I38935; I38935 VARIANT DOMAIN DOMAIN ACT_SITE NP_BIND DOMAIN DOMAIN TRANSMEM DOMAIN SIGNAL ProDom; PD000001; Genew; EMBL; Z48923; EMBL; D50516; Transmembrane; Receptor; HGNC:1078; PS00108; PS50011; PS00107; Transferase; Serine/threonine-protein ki 27 151 172 203 209 230 333 CAA88759.1; BAA09094.1; AAC50105.1; Glycoprotein; PROTEIN_KINASE_ST; FALSE_NEG PROTEIN_KINASE_DOM; 1. BMPR2 150 171 1038 504 217 230 230 333 550 618 908 9110 1110 1038 Prot_kinase; 1 PROTEIN_KINASE_ATP; . . . N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
N-LINKED (GLCNAC.
C -> Y (in PPH1).
/FTId=vAR_013670.
C -> Y (in PPH1).
/FTId=vAR_013671.
C -> W (in PPH1). PROTEIN KINASE.
ATP (BY SIMILAR
ATP (BY SIMILAR
BY SIMILARITY.
POLY-SER.
POLY-THR. CYTOPLASMIC POLY-ASN POTENTIAL EXTRACELLULAR (POTENTIAL) POTENTIAL (BY SIMILARITY). (BY SIMILARITY). MORPHOGENETIC PROTEIN protein serine/threo. (POTENTIAL). . . . kinase; ATP-binding;
sm; Disease mutation. (POTENTIAL) RECEPTOR TYPE

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ATPB_CORCN
ID ATPB_COR
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                                                               This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entropean Bioinformatics Institute. There are no resti
                                                                                                                -!- SUBČELLULAR LOCATION: Membrane-bound.
-!- SIMILARITY: BELONGS TO THE ATPASE PROTEIN 8
                                                                                                                                                     "Phylogenetic relationships of the enigmatic hoatzin (Opisthocomus hoazin) resolved using mitochondrial and nuclear gene sequences.";
MO1. Biol. Evol. 16:1300-1307(1999).
-i- FUNCTION: THIS IS ONE OF THE CHAINS OF THE NONENZYMATIC COMPONENT (CF(0) SUBUNIT) OF THE MITOCHONDRIAL ATPASE COMPLEX.
-i- CATALYTIC ACTIVITY: ATP + H(2)O + H(+)(In) = ADP + phosphate +
                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE-99416451; PubMed-10486983;
Hughes J.M., Baker A.J.;
                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Archosauria; Aves; Neognathae; Musophagiformes; Muso
                                                                                                                                                                                                                                                                                                                                                                                   16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
ATP synthase protein 8 (EC 3.6.3.14) (ATPase
                                                                                                                                                                                                                                                                                                                                                                                                                                          ATP8_CORCN Q9TBI6;
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            non-profit institutions as long as its content is in no way and this statement is not removed. Usage by and for commercial requires a license agreement (See http://www.isb-sib.ch/announce/an email to license@isb-sib.ch).
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N -> K (in ppm.
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Pred. No.
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C -> S (in PPH1)
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C -> R (in PPH1)
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W; 1389923CE574B913 CRC64;
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/FTId=VAR_013680
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P08165; Q95KN8;
01-AUG-1988 (Rel
                                                                MEDLINE=88082777; PubMed=3691502;
Hanukoglu I., Gutfinger T., Haniu M., Shively J.E.;
"Isolation of a cDNA for adrenodoxin reductase (ferredoxin-NADP+
reductase). Implications for mitochondrial cytochrome P-450 system. J. Biochem. 169:449-455(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-JUL-1998 (Rel. 36, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
NADPH:adrenodoxin oxidoreductase, mitochondrial
(EC 1.18.1.2) (Adrenodoxin reductase) (AR) (Ferr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00895; ATP-synt_8; 1.

Hydrogen ion transport; CF(0); Mitochondrion; SEQUENCE 55 AA; 6485 MW; 973552DB00E918AD
                                                                                                                                                                                                                                                                       "Molecular cloning and sequence analysis of full-length cDNA for mRNA of adrenodoxin oxidoreductase from bovine adrenal cortex."; Biochem. Biophys. Res. Commun. 145:1239-1247(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
               TISSUE=Adrenal gland;
MEDLINE=99299392; PubMed=10369776;
                                         X-RAY CRYSTALLOGRAPHY (1.7 ANGSTROMS)
                                                                                                                                TISSUE=Adrenal cortex;
                                                                                                                                          SEQUENCE OF N-TERMINUS, AND PARTIAL SEQUENCE
                                                                                                                                                                             "cDNA sequence of adrenodoxin reductase.";
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MEDLINE=89170752; PubMed=2924777;
                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                           Yamano T., Okamoto M.;
                                                                                                                                                                                                                                                                                                                     Nonaka Y.,
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                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                   "Cloning and sequence analysis of adrenodoxin reductase
bovine adrenal cortex.";
                                                                                                                                                                                                                                                                                                                                                                                                             Sagara Y.,
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Sagara Y., Takata Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Gene structure of bovine adrenodoxin reductase."; Biol. Pharm. Bull. 16:1200-1206(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-94177140; PubMed-8130767;
Takata Y., Sagara Y., Kono A., Sekimizu K., Horiuchi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.,
MEDLINE=94177140; P
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                                                                                                                                                                                                                                                                                                                        Murakami
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   Vonrhein
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                                                                                                                                                                    180:479-484(1989).
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  С.,
                                                                                                                                                                                                                                                                                                                       Yabusaki Y.,
  Hanukoglu
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Pred. No.
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  Schulz G.
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EMBL; D83475; BAA11921.1; JOINED.
EMBL; D83473; BAA11921.1; JOINED.
EMBL; D83474; BAA11921.1; JOINED.
EMBL; D83474; BAA11921.1; JOINED.
EMBL; M17029; AAA30362.1; -.
EMBL; D00211; BAA00150.1; -.
EMBL; X13736; CAA33002.1; -.
PIR; JT0751; JT0751.
PDB; 1E1L; 24 SEP-00.
PDB; 1E1K; 24-SEP-00.
PDB; 1E1N; 24-SEP-00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "The structure of electron transfer J. Mol. Biol. 289: [7]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            transfer path in steroid biosynthesis.";

J. Biol. Chem. 276:2786-2789(2001).

J. Biol. Chem. 276:2786-2789(2001).

FUNCTION: SERVES AS THE FIRST ELECTRON TRANSFER PROTEIN IN ALL THE MITOCHONDRIAL P450 SYSTEMS. INCLUDING CHOLESTEROL SIDE CHAIN CLEAVAGE IN ALL STEROIDGENIC TISSUES, STEROID 11-BETA HYDROXYLATION IN THE KIDNEY, AND STEROL C-27 HYDROXYLATION IN THE KIDNEY, AND STEROL C-27 HYDROXYLATION IN THE KIDNEY, AND STEROL C-27 HYDROXYLATION IN THE
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MEDLINE=20455764; PubMed=10998235;

MEDLINE=20455764; PubMed=10998235;

Ziegler G.A., Schulz G.E.;

Ziegler G.A., Schulz G.E.;

Adrenodoxin reductase in complex with NADP+ and

"Crystal structures of adrenodoxin reductase in complex of an enzyme

"Crystal suggesting a mechanism for the electron transfer of an enzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      X-RAY CRYSTALLOGRAPHY (2.3 ANGSTROMS) OF COMPLEX WITH ADRENODOXIN.
MEDLINE=21264735; PubMed=11053423;
Mueller J.J., Lapko A., Bourenkov G., Ruckpaul K., Heinemann U.;
"Adrenodoxin reductase-adrenodoxin complex structure suggests electron"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Biochemistry 39:10986-10995(2000).
                                 CONFLICT
                                                                                                       TRANSIT CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in
                                                                                                                                                          Electron
                                                                                      VARSPLIC
                                                                                                                                           Mitochondrion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  adrenodoxin + NADPH.

COFACTOR: FAD:
PATHWAY: CHOLESTEROL SIDE-CHAIN-CLEAVAGE SYSTEM.
SUBUNIT: Monomer.
SUBCLLULAR LOCATION: Mitochondrial matrix.
ALTERNATIVE PRODUCTS:
Event_Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LIVER.

CATALYTIC ACTIVITY: Reduced adrenodoxin + NADP(+) = oxidized
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ISOId=P08165-2; Sequence=VSP_003415;
Note=Represents 10-20% of all adrenodoxin reductase mRNAs and seems to be inactive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IsoId=P08165-1;
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PRO0419; AL.
In transport; O.
Artion; Transit pc.
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204
                                                                                                       PRO0419; ADXEDTASE.

PRO0419; ADXEDTASE.

In transport; Oxidoreductase; Flavoprotein; NADP; FAD;

In transport; Oxidoreductase; Flavoprotein; Oxidoreductase; Flavoreductase; 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      e of adrenodoxin reductase of mitochondrial P450 systems: sfer for steroid biosynthesis."; 289:981-990(1999).
                                   77
81
   128
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                                                  E -> EVLLLCQ (in isoform /FTId=VSP_003415.
 3).
QDAYH
                                                                                        NADPH:ADRENODOXIN OXIDOREDUCTASE. E -> EVLLLCQ (in isoform Long).
                                   FGVAPDHPEVKNVI
   ţ
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 RVYRLT (IN REF. 3)
                                       -> VWLALTTPRSRMLL (IN REF
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PS -> RL (IN REF. 3).
RAAGIRLAVTR -> ARRSAWQSPE (IN REF. 3).
TRAVPTGDVEDL -> HPGSAHWGCGGP (IN REF. 3).
           Score 50;
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Matches 6; Conserv
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15-JUL-1999 (Rel. 38, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
ATP synthase protein 8 (EC 3.6.3.14) (ATPase subunit
MTATP8 OR ATP8.
                                                                                                                       Q9Bw60; Q9NVD9; Q9Y396;
28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence up
15-SEP-2003 (Rel. 42, Last annotation
Elongation of very long chain fatty ac
ELOVL1 OR SSC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (DEC-1997) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: THIS IS ONE OF THE CHAINS OF THE NONENZYMATIC (CF(0) SUBUNIT) OF THE MITOCHONDRIAL ATPASE COMPLEX.
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15-JUL-1999
                                                                Eukaryota;
Mammalia; F
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Electron British and the Electron British Bri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Cho
Testudines; Pleurodira;
                                                                                                                                                                                                                                                                    ELO1_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                       Homo sapiens (Human)
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SIMILARITY: BELONGS TO
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Jen ion transport; CF(0); Mitochondrion; Transmembrane.
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                                                              Chordata;
Primates;
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Pred. No.
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                                                           Craniata; Ve
Catarrhini;
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acids protein 1 (CGI-88).
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                                                                                     Vertebrata;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=20272150; PubMed=10810093;
Lai C.-H., Chou C.-Y., Ch'ang L.-Y., Liu C.-S., Lin
"Identification of novel human genes evolutionarily
Caenorhabditis elegans by comparative proteomics.";
Genome Res. 10:703-713(2000).
                   SITE
                                                                                                                   EMBL; AF151846; AAD34083.1; ALT_FRAME. EMBL; AK001653; BAA91813.1; -. EMBL; BC000618; AAH00618.1; -.
                                                                                                                                                               modulited and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                          use by non-profit institutions as long modified and this statement is not removed.
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 CONFLICT
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                                                                                                             Genew; HGNC:14418; ELOVL1
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                                                      TRANSMEM
                                                                                  PROSITE; PS01188;
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                                                                                                                                                                                  s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bloinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
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                                                                                        Pro; IPR002076; PF01151; ELO; 1
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                                                                       biosynthesis;
                   23
61
176
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275
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                  43
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ENDOPLASMIC |
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C STRAING-278L/GJ; TISSUE-Embryo;

K MEDLINE-21085660; PubMed=11217851;

K ARWAI J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

A Arakawa T., Hara A., Fukunishi Y., Konno H., Kakawa T., Saito R.,

A Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

Kadota K., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,

Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

Ka Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

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Ka Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,

Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

Ka Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,

Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,

Blake J., Barsh G., Fletcher C., Fujita M., Gariboldi M.,

Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
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28-FEB-2003 (Rel. 41, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation updat
Elongation of very long chain fatty acids p
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Mammalia; Eutheria;
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Rodentia;
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Nordone P.,
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01-APR-1990 (Rel.
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                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY: BELONGS TO THE ELO FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE SPECIFICITY: Expressed in a broad variety of tissues. Highly expressed in stomach, lung, kidney, skin and intestine. Moderately expressed in white adipose tissue, liver, spleen, brain, brown adipose tissue, heart and muscle. Weakly expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             reticulum (Potential).
TISSUE SPECIFICITY: Expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBCELLULAR LOCATION: Integral membrane protein. Endoplasmic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 derivative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: Could be implicated in tissue-specific synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through a collab
een the Swiss Institute of Bioinformatics and the EMBL outst
European Bioinformatics Institute. There are no restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MGI:1858959;
                                                                                                                                                                                                             147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AF170907; AAF72572.1; -. BC006735; AAH06735.1; -. AK003743; BAB22975.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                             PF01151;
                                                                                                                                                                                                                                                           Similarity 6; Conser
                                                                                                                                                                                                             VLPWSW-WW
                                                                                                                                                                                                                                   ILPWKWPWW
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    non-profit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Marchionni L., Mashima J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          IPR002076;
                                                                                                                                                                                                                                                                                                        78
279 )
                                                                                                                                                                                                                                                                                                                                                                                                                     biosynthesis;
                                                                                                                                                                                                                                                                                                                                               23
61
176
203
231
275
                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Swiss Institute or province Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         this statement
                                                                                                                                                                                                                                                                                                                                                                                                                                             ELO;
                                                                                                                                                                                                                                                                                                           AA;
                                                                                                                                                  STANDARD;
                                                                                  14, Created)
14, Last sequence update)
41, Last annotation update)
ein 8 (EC 3.6.3.14) (ATPase
                                                                                                                                                                                                                                                                                                                                                                                                                                  ELO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Elov11
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                                                                                                                                                                                                                                                                                                                                               43
81
196
223
251
277
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32678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    institutions as long as its content
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                                                                                                                                                                                                                                                                                                                                                                                                                      Transmembrane;
                                                                                                                                                                                                                                                                                                            MW.
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                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL.
POTENTIAL.
POTENTIAL.
                                                                                                                                                                                                                                                            Pred. No. 17;
L; Mismatches
                                                                                                                                                                                                                                                                                                                       YΕ
                                                                                                                                                                                                                                                                                                                                             POTENTIAL.
ENDOPLASMIC RETICULUM
                                                                                                                                                                                                                                                                                   Score 47.5;
                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                           E -> MR (IN REF. : CA5A1CF55FDB2F76
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                                                                                                                                                  55
                                                                                                                                                                                                                                                                                                                                                                                                                      Endoplasmic reticulum.
                                                                                                                                                  ΑA
                                                                                                                                                                                                                                                                                   DВ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Usage
                                                                                                                                                                                                                                                                                                                          ω
                                                                                                                                                                                                                                                                                                            CRC64;
                                                                                                                                                                                                                                                                                   Length 279;
                                                                                                                                                                                                                                                                                                                                                RETRIEVAL MOTIF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a collaboration
MBL outstation -
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both
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Lunalyula; Metazoa; Chordata; Craniata; Vertebrata; Eute Actinopterygii; Neopterygii; Teleostei; Euteleostei; Nec Acanthomorpha; Paracanthopterygii; Gadiformes; Gadidae; NCBI_TaxID=8049;

Euteleostomi;
; Neoteleostei;

Gadus

Gadus morhua (Atlantic Mitochondrion.

cod)

MTATP8 OR ATP8

ATP synthase

protein

subunit

8

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RESULT 11
ATP8_ONCMY
ID P48179
AC P48179
DT 01-FEB
DT 28-FEB
DT 28-FEB
DT 28-FEB
OS ONCOTH
OS SALMO
OS SALMO
OC EUKARY
OC EUKARY
OC ACTINO
OC PTOTAC
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
SPECIES-0.mykiss; TISSUE-LIVEL,
SPECIES-0.mykiss; TISSUE-LIVEL,
MEDLINE-96139027; PubMed-8587139;
Zardoya R., Garrido-Pertierra A., Bautista J.M.;
"The complete nucleotide sequence of the mitochondrial
"The complete nucleotide sequence of the mitochondrial
                                                                                                                                                                                                                                                                                                                                                                               01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
ATP synthase protein 8 (EC 3.6.3.14) (ATPase subunit 8) (A6L).
MTATP8 OR ATP8.
Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri), and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATP8_ONCMY
P48179;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hydrogen
TRANSMEM
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "The complete mitochondrial DNA sequence of Atlantic cod (Gadus morhua): relevance to taxonomic studies among codfishes.";
MOL. Mar. Biol. Biotechnol. 5:203-214(1996).
-i- FUNCTION: THIS IS ONE OF THE CHAINS OF THE NONENZYMATIC COMPONENT (CF(0) SUBUNIT) OF THE MITOCHONDRIAL ATPASE COMPLEX.
-i- CATALYTIC ACTIVITY: ATP + H(2)O + H(+)(In) = ADP + phosphate +
                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosi
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus
NCBI_TaxID-8022, 8030;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X17659; CAA35655.1; -. EMBL; X99772; CAA68110.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SUBCELLULAR LOCATION: Membrane-bound.
-!- SIMILARITY: BELONGS TO THE ATPASE PROTEIN 8 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-Norwegian c
MEDLINE-96414925;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                morhua."
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STRAIN-Norwegian coastal 1; TISSUE-Liver;
MEDLINE-90174958; PubMed-2308841;
Johansen S., Guddal P.H., Johansen T.;
                                                                                                                                                                                                                                                                                                                                                              Salmo salar (Atlantic salmon).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00895; ATP-synt_8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nucleic Acids Res.
                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR001421; ATPase8_mit.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Organization of the mitochondrial genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  H(+)(Out)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   coastal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6481 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      47.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 47;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
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4.7;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Transmembrane
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૧.™;
                                                         DNA
                                                      genome of
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ATPB_PPODO
ID ATPB_PP
AC Q35416
DT 15-ULL
DT 15-ULL
DT 28-FEB
DE ATP SY
GN WIATPB
OG Mitcoh
OG Protop
OG Libnoi
OC Libnoi
COX NCBL_T
RN [1]
RP SEQUEN
RA ZARDOY
RT LUNGTI
RT CLOSE
RL Geneti
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Best Local S
Matches
                                                                                                                                                                                                                            ATP8_PRODO STANDARD; PRT; 55 AA Q35416; 15-JUL-1999 (Rel. 38, Created) 15-JUL-1999 (Rel. 38, Last sequence update) 28-FEB-2003 (Rel. 41, Last annotation updat ATP synthase protein 8 (EC 3.6.3.14) (ATPas MTATPB OR ATPB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "The complete mitochondrial genome sequence of a teleost, Salmo salar and comparisons with other salmoniformes.";
Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
-i- FUNCTION: THIS IS ONE OF THE CHAINS OF THE NONENZYMATIC COMPONENT (CF(0) SUBUNIT) OF THE MITOCHONDRIAL ATPASE COMPLEX.
-i- CATALTIC ACTIVITY: ATP + H(2)O + H(+)(In) - ADP + phosphate +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SPECIES=S.salar; TISSUE-Liver;
MEDLINE=20018174; PubMed=10548724;
Hurst C.D., Bartlett S.E., Davidson W.S., Bruce I.J.;
"The complete mitochondrial DNA sequence of the Atlantic salmon, salar.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00895; ATP-synt_8; 1.
Hydrogen ion transport; CF(0); Mitochondrion;
TRANSMEM 4 24 POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; L29771; AAB03351.1; --
EMBL; U12143; AAD04737.1; --
EMBL; GF133701; AAF61382.1;
--
PIR; T09861; T09861.
PIR; T09861; T09951.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SPECIES=S.salar;
Arnason U., Johnsson E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         salar.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    [2]
SEQUENCE FROM N.A.
 close relative
Genetics 142:12
   "The complete nucleotide sequence of the mitochondrial genome lungfish (Protopterus dolloi) supports its phylogenetic positiclose relative of land vertebrates."; Genetics 142:1249-1263(1996).
                                                               Zardoya R., Meyer
                                                                                 MEDLINE=96271539;
                                                                                                TISSUE-Egg
                                                                                                               SEQUENCE FROM N.A
                                                                                                                                             NCBI_TaxID=27779;
                                                                                                                                                              Eukaryota; Metazoa;
Dipnoi; Lepidosiren:
                                                                                                                                                                                                Mitochondrion.
                                                                                                                                                                                                           Protopterus dolloi (Lungfish)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY: BELONGS TO THE ATPASE PROTEIN 8 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBCELLULAR LOCATION: Membrane-bound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              H(+)(Out)
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                                                                                                                                                                Lepidosireniformes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                           PWKWPW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IPR001421; ATPase8_mit.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA;
                                                                                 PubMed=8846902;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6413 MW;
                                                                                                                                                                             Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        47.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rasmussen A.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                Protopteridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D02920C3E346925F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 47; DB Pred. No. 4.7;
                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                           n update)
(ATPase
                                                                                                                                                                                                                                                                                                                           A
                                 phylogenetic position
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                                                                                                                                                                Protopterus
                                                                                                                                                                                                                                             subunit
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COMPONENT

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ATP8_SALAL
ID ATP8_SALAL
ID ATP8_SALAL
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ID ATP8_SALAL
ID ATP8_SALAL
ID ATP8_SALAL
ID ACREA
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OC IO SALAT
OC ATP SALAL
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Best Local
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InterPro; IPR001421; AIPase8_mit.
Pfam; PF00895; ATP-synt_8; 1.
Hydrogen ion transport; CF(0); Mi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -i- FUNCTION: THIS IS ONE OF THE CHAINS OF THE NONENZYMATIC COMPC
(CF(0) SUBUNIT) OF THE MITOCHONDRIAL ATPASE COMPLEX.
-i- CATALYTIC ACTIVITY: ATP + H(2)O + H(+)(In) = ADP + phosphate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-OCT-2001 (Rel. 40, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
ATP synthase protecin 8 (EC 3.6.3.14) (ATPase subunit
MTATP8 OR ATP8 OR ATPASE8.
Salvelinus alpinus (Arctic char).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (MAY-1999) to the EMBL/GenBank/DDBJ databases.

-i- EUNCTION: THIS IS ONE OF THE CHAINS OF THE NONENZYMATIC COMPONENT
-i- CATALYTIC ACTIVITY: ATP + H(2)O + H(+)(In) = ADP + phosphate +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Doiron S., Blier P.U., Bernatchez L.; mailton analysis of complete sequence of mitochondrial genome between brook char (Salvelinus fontinalis) and arctic char (S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Protacanthopterygii; Salmoniformes; Salmonidae; Salvelinus.
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   InterPro; IPRO01421; ATPasé8_mit. Pfam; PF00895; ATP-synt.8; 1. Hydrogen ion transport; CF(0); Mi SEQUENCE 55 AA; 6455 MW; 71E4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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16-OCT-2001
                                                                                                                   EMBL; AF154851; AAD41389.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                  SÜBCELLULAR LOCATION: Membrane-bound. SIMILARITY: BELONGS TO THE ATPASE PROTEIN 8 FAMILY.
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40, Last seq
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         CF(0); Mitochondrion; MW; 71E430C2E346924A
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Pred. No.
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            Transmembrane CRC64;
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RESULT 14
ATP8_SALFO
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RESULT 15
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Best Local
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16-OCT-2001 (Rel. 40, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
ATP synthase protein 8 (EC 3.6.3.14) (ATPase subunit 8) (A6L).
WMATP8 OR ATP8 OR ATPASE8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

Doiron S., Blier P.U., Bernatchez L.;

"A comparative analysis of complete sequence of mitochondrial between brook char (Salvelinus fontinalis) and arctic char (S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Protacanthopterygii; Salmoniformes; Salmonidae; Salv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATP8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protacanthopterygii;
NCBI_TaxID=8038;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mitochondrion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Salvelinus fontinalis (Brook trout) (Brook char).
           15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
15-DEC-1998 (Rel. 41, Last annotation update)
28-FEB-2003 (Rel. 41, Last annotation update)
ATP synthase protein 8 (EC 3.6.3.14) (ATPase subunit 8) (A6L)
MTATP8 OR ATP8 OR ATPASE8.
Scyllorhinus canicula (Spotted dogfish) (Spotted catshark).
                                                                                          ATP8_SCYCA
079405;
                                                                                                                      _SCYCA
                                                                                                                                                                                                                                                                                          InterPro; IPR001421; ATPase8_mit.
Pfam; PF00895; ATP-synt_8; 1.
Hydrogen ion transport; CF(0); Mi
                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                  EMBL; AF154850; AAD41376.1;
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                                                                                                                                                                                                                                                                                 6443 MW;
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83.3%;
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Pred. No.
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4.7;
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                                                                                                                                                                                                                                 1;
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Best Local Similarity
Matches 5; Conserv
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PIR; T11304; T11304.

InterPro; IPR001421; ATPasse8_mit.

Pfam; PF00895; ATP-synt_8; 1.

Pfam; PF00895; ATP-synt_8; 1.

Potenvial.

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POTENVIAL.
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Janvier P., Laudet V., Gachelin G.;
"The complete nucleotide sequence of the mitochondrial DNA of the
dogfish, Scyliorhinus canicula.";
Genetics 150:331-344(1998).

-i- FUNCTION: THIS IS ONE OF THE CHAINS OF THE NONENZYMATIC COMPONENT
(CF(0) SUBUNIT) OF THE MITOCHONDRIAL ATPASE COMPLEX.

-i- CATALYTIC ACTIVITY: ATP + H(2)O + H(+)(In) = ADP + phosphate +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SÜBÜELLÜLAR LOCATION: Membrane-bound.
-!- SIMILARITY: BELONGS TO THE ATPASE PROTEIN 8 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Chondrichthyes; Elasmobranchii; Galeomorphii; Galeoidea; Carcharhiniformes; Scyliorhinidae; Scyliorhinus.
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                                                                                                                                                                                                                                                                                                                       Conservative
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                                2, 2003, 10:02:01
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Pred. No. 4.7;
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Perfect score:
Sequence:
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2: 'sp_bacteria
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(without alignments)
31.949 Million cell updates/sec
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QBrpf4 desulfitoba
QBpb17 xanthomonas
Q9bbe4 homo sapien
Q9dt81 tt virus. o
Q91d04 tt virus. o
Q91004 human coron
Q990m1 human coron
Q990m2 human coron
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Q84712 porcine epi
Q81av1 porcine epi
Q81av1 porcine epi
Q84q98 porcine epi
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Q9duc4 tt virus. o
Q9dt80 tt virus. o
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Q9fgm0 arabidopsis	Q8cb00 mus musculu	068125 rhodobacter	Q8gzx7 oryza sativ	Q9y0e8 drosophila	Q9jh31 tt virus. o		Q92vq2 rhizobium m		Q9wyfl thermotoga	Q8seb4 elaenia fal	Q91hp7 oedaleus as	Q9yw19 melanoplus	Q9n9t4 leishmania	Q8yy85 anabaena sp	Q13161 homo sapien	Q8zu59 pyrobaculum	Q9b6t0 eudromia el	Q8djh5 synechococc			Q934j3 prevotella		a		Q8b9n6 rachiplusia	Q8tww9 methanopyru	Q9w476 drosophila	Q9y4n1 homo sapien

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01-MAR-2003
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InterPro; IPR001563; Serine_ca
InterPro; IPR004219; TTVirus_U
Pfam; PP02956; TT_ORF1; 1.
PROSITE; PS00131; CARBOXYPEFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TT virus.
Viruses; ssDNA viruses;
                                                                                                                                                                                                                                                                                                                                                                              Okamoto H., Nishizawa T., Tawara A., Peng Y., Takahashi M., Kishimoto J., Tanaka T., Miyakawa Y., Mayumi M.; "Species-specific TT viruses in humans and nonhuman primates
                                                                                                                                                                                                                                                                                                                                                                                                                                              Okamoto H.;
Submitted (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9DUC4
                                                                                                                                                                                                                                                                                                                                                            phylogenetic relatedness.";
Virology 277:368-378(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=Mf-TTV9;
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Okamoto H., Nishizawa T., Tawara
Sai T., Sugai Y.;
"TT virus mRNAs detected in the
                                                                                                                            TT virus.
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01-MAR-2001 (TrEMBLrel.
01-OCT-2002 (TrEMBLrel.
                                                                                                                                                                  Q9DT80;
01-MAR-2001
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                                                                                  STRAIN=TYM9
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                             Biochem.
                                                                         MEDLINE=20568739;
                                                                                           SEQUENCE FROM N.A.
                                                                                                                      Viruses; ssDNA viruses;
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                                                                PubMed=11118348;
zawa T., Tawara A.,
                           Res. Commun.
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75.0%;
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Pred. No.
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01-JUN-2002
01-MAR-2003
da Silva A.C.R., Ferro J.A., Reinach F.C., Farah C.S., Furlan L.R., Quaggio R.B., Monteiro-Vitorello C.B., Van Sluys M.A., Almeida N.F., Alvesta L.M.C., do Amaral A.M., Bertolini M.C., Camargo L.E.A., Camarotte G., Cannavan F., Cardozo J., Chambergo F., Ciapina L.P., Cicarelli R.M.B., Coutinho L.L., Cursino-Santos J.R., El-Dorry H., Farita J.B., Ferreira A.J.S., Ferreira R.C.C., Ferro M.I.T., Farita J.B., Ferreira R.C.C., Greber A., Formighieri E.F., Franco M.C., Greggio C.C., Gruber A., Katsuyama A.M., Kishi I.T., Leite R.P., Lemos E.G.M., Lemos M.V.F., Martins E.C., Machado M.A., Madeira A.M.B.N., Martinez-Rossi N.M., Martins E.C., Machado M.A., Madeira A.M.B.N., Martinez-Rossi N.M., Moreira L.M., Novo M.T.M., Okura V.K., Oliveira M.C., Oliveira V.R., Pereira H.A., Rossi A., Sena J.A.D., Silva C., de Souza R.F.,
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EMBL; AF403185; AALB7800.1; -.
InterPro; IFR00631; Tat.
TIGRPAMS; TIGR01409; TAT_Signal_seq;
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Hypothetical 16.9 kDa protein
Desulfitobacterium hafniense.
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                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.

STRAIN-ATCC 33913 / NCPPB 528;

MEDLINE-22022145; PubMed-12024217;

da Silva A.C.R., Ferro J.A., Reinach F.C.,

Quaggio R.B., Monteiro-Vitorello C.B., Van

Quaggio R.B., Van

Quaggi
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01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Davis J.K.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16876 MW;
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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RESULT 7
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T "Comparison of the genomes of two Xanthomonas pathogens with host specificities.";
L Nature 417:459-463(2002).
R EMBL; AE012212; AAM40431.1; -.
R InterPro; IPR003709; Vany.
R Ffam; PF02557; Vany; 1.
R Ffam; PF02557; Vany; 1.
SEQUENCE 208 AA; 22940 MW; 10B180F6EAF7B014 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Best Local
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01-MAR-2001
01-MAR-2001
01-OCT-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hypothetical protein.
Homo sapiens (Human).
Eukaryota; Metazoa; Cl
Mammalia; Eutheria; P.
                                                                                                                                                                                                                                                                                                                                                                                                                            ORF1
                                                                                                                                                  Okamoto H., Nishizawa
Sai T., Sugai Y.;
                                                                                                                                                                           MEDLINE=20568739; PubMed=11118348; Okamoto H., Nishizawa T., Tawara A
                                                                                                                                                                                                                                                                                                                                                                                       TT virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC-2001 (TrEMBLrel. 01-OCT-2002 (TrEMBLrel.
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01-DEC-2001 (TrEMBLrel.
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Biochem. Biophys. Res. Commun. EMBL; AB050448; BAB19928.1; -. InterPro; IPR004219; TTvirus_Ur
                                                                                                                                                                                                                                                STRAIN=TYM9;
                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                              Viruses; ssDNA viruses;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9DT81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-Skin,
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                                                                                                                   "TT virus mRNAs detected in the bone marrow
                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=68887;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
                                                                                       individual."
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6; Conserv
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342 AA; 37741 MW;
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75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
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                                                           279:700-707(2000)
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                                                                                                                                                                               Takahashi M.,
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O1-JUN-2001 (TremBLrel. 1
O1-OCT-2002 (TremBLrel. 1
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Q91D04;
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                                                      Pfam; PF01600; Corona_S1;
Pfam; PF01601; Corona_S2;
                                                                                                                          "Viral and cellular changes in a human cell li with human coronavirus HCOV-229E."; Submitted (FEB-2001) to the EMBL/GenBank/DDBJ EMBL; AF344186; AAK32188.1;
                                                                                                                                                                                               STRAIN=229E;
Bonavia A., Holmes K.V.;
                                                                                                                                                                                                                                                                   Viruses; ssRNA positive-str
Coronaviridae; Coronavirus.
NCBI_TaxID=11137;
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Yoshikawa A.;
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Viruses; ssDNA viruses;
NCBI_TaxID=68887;
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SEQUENCE 748 AA; 88552 MW;
                                     SEQUENCE
                                                                                        InterPro; IPR002551; Corona_S1.
InterPro; IPR002552; Corona_S2.
                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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Pred. No. 38;
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 Score 54;
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Q990M3;
01-JUN-2001 (TrEMBLrel. 1
01-JUN-2001 (TrEMBLrel. 1
01-OCT-2002 (TrEMBLrel. 2
Spike glycoprotein.
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01-JUN-2001 (TrEMBLrel.
01-OCT-2002 (TrEMBLrel.
                                                                                                   "Viral and cellular changes in a human cell line persistently infected with human coronavirus HCoV-29E."; with human coronavirus HCoV-29E."; Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.

EMBL; AF344187; AAK32189.1; -.
InterPro; IPR002551; Corona_S1.
InterPro; IPR002551; Corona_S2.
Pfam; PF01600; Corona_S1; 1.
Pfam; PF01601; Corona_S2; 1.
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S.
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InterPro; IPR002551; Corona_S1.
InterPro; IPR002552; Corona_S2.
Pfam; PF01600; Corona_S1; 1.
Pfam; PF01600; Corona_S1; 1.
SEQUENCE 1173 AA; 128760 MW; B73A165A6270152A CRC64;
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"Viral and cellular changes in a human cell line
with human coronavirus HCOV-229E.";
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                                                                                   SEQUENCE
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                                                                                   1173 AA;
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0; Mismatches
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Pred.
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                                                                                   9E2368160082A81A CRC64;
     No.
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DB
74;
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                                12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA stage; Nidovirales;
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                             Length 1173;
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Q990M2
ID Q990M
AC Q990M
AC Q990M
AC Q990M
DT 01-JU
DT 01-OC
DE Spike
GS Human
OC Virus
OC COTON
OC NCBL;
RN [1]
RN [1]
RN [1]
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RD SEQUE
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Query Match
Best Local Similarity
Matches 6; Conserv
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"Viral and cellular changes

with human coronavirus HCOV-

Submitted (FEB-2001) to the

EMBL; AF344188; AAK32190.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human coronavirus (strain 229E).
Viruses; ssRNA positive-strand viruses,
Coronaviridae; Coronavirus.
                                           STRAIN-Br1/87;
MEDLINE=9338943; PubMed=8397280;
Bridgen A., Duarte M., Tobler K., Laude H., Ackermann M.;
Sequence determination of the nucleocapsid protein gene of the
porcine epidemic diarrhoea virus confirms that this virus is a
                                                                                                                                    J. Gen. Virol.
                                                                                                                                                                                                                                                                               Porcine epidemic diarrhea virus. Viruses; ssRNA positive-strand v Coronaviridae; Coronavirus.
coronavirus related to human coronavirus 229E and transmissible gastroenteritis virus.";
J. Gen. Virol. 74:1795-1804(1993).
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                                                                                                                      SEQUENCE FROM
                                                                                                                                                                virus
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                                                                                                                                                                                                                                                                                                                           Spike protein.
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InterPro; IPR002552; Corona_S2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=229E;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Spike glycoprotein
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                                                                                                                                                                                        Duarte M.,
                                                                                                                                                                                                         MEDLINE=94231173;
                                                                                                                                                                                                                                                                  NCBI_TaxID=28295;
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                                                                                                                                                                           Duarte M., Laude H.;
Sequence of the spike
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                                                                                                                                                75:1195-1200(1994).
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[3] SEQUENCE FROM N.A.

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RESOLT OF SOLUTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
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Best Local
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01-DEC-2001
01-DEC-2001
01-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=93389433; PubMed=8397280; Bridgen A., Duarte M., Tobler K., Laude H., Ackermann M.; Sequence determination of the nucleocapsid protein gene of porcine epidemic diarrhea virus confirms that this virus is coronavirus related to human coronavirus 229E and porcine transmissible gastroenteritis virus."; J. Gen. Virol. 74:1795-1804(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Spike protein.
Porcine epidemic diarrhea virus.
Viruses; ssRNA positive-strand v
Coronaviridae; Coronavirus.
NCBI_TaxID-28295;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=94120721; PubMed=8291230; Duarte M., Tobler K., Bridgen A., Rasschaert D.,
                      MEDLINE-98455678; PubMed-9782358; Bridgen A., Kocherhans R., Tobler K., Carvajal A., Ackermann "Further analysis of the genome of porcine epidemic diarrhea Adv. Exp. Med. Biol. 440:781-786(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=CV7
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Duarte M., Tobler K., Bridgen A.,
  Adv.
                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                       "PEDV leader sequence and junction sites."; Adv. Exp. Med. Biol. 380:541-542(1995).
                                                                                                                                                                                                                                        Tobler K., Ackermann M.;
                                                                                                                                                                                                                                                            MEDLINE=96112302; PubMed=8830538;
                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                          Virology 198:466-476(1994)
                                                                                                                                                                                                                                                                                                                                                                                                  "Sequence analysis of the porcine epidemic diarrhea virus genome between the nucleocapsid and spike protein genes reveals a polymo
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Pro; IPR002552; Corona_S2.
Pr01600; Corona_S1; 1.
Pr01601; Corona_S2; 1.
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85.7%;
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                                                                                                                                                                                                                                                                                                   "Cloning and nucleotide sequence analysis of spike epidemic diarrhea virus detected in Korea."; Submitted (OCT-2002) to the EMBL/GenBank/DBJ datab EMBL; AY167585; AAN86621.1; -. SEQUENCE 1383 AA; 151582 MW; B5BA4D7EE5371A54 (
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Porcine epidemic diarrhea virus
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'Cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
'Cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
'Cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
'Cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
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US-09-230-180-30
US-09-076-227-1
US-09-099-631A-1
US-09-099-631A-1
US-09-318-195A-2
US-09-030-619-98
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US-09-030-619-204
US-09-030-619-204
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US-09-076-227-36
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US-09-076-227-35
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                                                                                                                                                                                                                                                                                      NAME: Campbell, Cathryn
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P3:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619-535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 90071
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Selsted, Michael E.
APPLICANT: Cullor, James S.
TITLE OF INVENTION: BROAD SPECTRUM ANTIMICROBIAL COMPOUNDS
TITLE OF INVENTION: AND METHODS OF USE
NUMBER OF SEQUENCES: 1
                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: PRETTY, SCHROEDER, BRUEGGEMANN
STREET: 444 So. Flower Street, Suite 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 444 SO. FI
CITY: Los Angeles
STATE: California
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                              1 ILPWKWPWWPWRR 13
                                                                  Similarity 100 13; Conservative
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ILPWKWPWWPWRR 13
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Pred. No.
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US-08-197-205-5
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Patent No. 5547939
GENERAL INFORMATION:
APPLICANT: Selsted, Michael E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Ver CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/197,205
FILING DATE: 16-FEB-1994
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 9-UC 9881
REFERENCE/DOCKET NUMBER: 9-UC 9881
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
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Best Local S
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INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 13 amino acids
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                                                                                                                                                                                                                                               TITLE OF INVENTION: Broad Spectrum Antimicrobial Compounds
TITLE OF INVENTION: and Methods of Use
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSE: Campbell and Flored
STREET.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: TBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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Local Similarity 100.0%;
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                APPLICATION NUMBER: FILING DATE: 16-FE
                                                                                                                                                                                                                             CITY: San Diego
                                                                                                                                                                                     COUNTRY:
CLASSIFICATION:
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4370 La Jolla Village Drive, Suite 700
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4370 La Jolla Village Drive, Suite 700
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16-FEB-1994
N: 514
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                                                                                               US-08-915-314-29
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Matches 13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
                               Matches
                                                             Query Match
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: NO. 6180604tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
REGISTRATION NUMBER: 39,317
                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Fraser, Janet R.
APPLICANT: West, Michael H.P.
APPLICANT: Krieger, Timothy J.
APPLICANT: Taylor, Robert
APPLICANT: Taylor, Robert
APPLICANT: Erfle, Douglas
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 66
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 9
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CITY: Seattle
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                                 Conservative
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100.0%; Pred. No. 1.1e-07;
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                                   Score 99; DB 3;
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                                                                                                                                                                                                                                                                                                                                                                                                                     Description US/08702054B Patent No. 6191254
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Best Local :
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SEQ ID NO 30
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PRIOR APPLICATION NUMBER: KR 2
PRIOR APPLICATION DATE: 1997-05-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/230,180 CURRENT FILING DATE: 1999-03-10 PRIOR APPLICATION NUMBER: PCT/KR98/00132 PRIOR FILING DATE: 1998-05-28 PRIOR APPLICATION NUMBER: KR 13372/1998 PRIOR FILING DATE: 1998-04-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Korea Advanced Institute of Science and Technology TITLE OF INVENTION: METHOD FOR MASS PRODUCTION OF TITLE OF INVENTION: ANTIMICROBIAL PEPTIDE FILE REFERENCE: 6181/0F135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -09-230-180-30
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NUMBER OF SEQ ID NOS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CENGTH:
                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: ANTIMICROBIAL CATIONIC FEFTILES
TITLE OF INVENTION: AND METHODS OF SCREENING FOR THE SAME
NUMBER OF SEQUENCES: 44
                                                                           OPERATING SYSTEM: Windows 95
SOFTWARE: FastSEO for Windows Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/702, FILING DATE: 23-AUG-1996 PRIOR APPLICATION DATA: APPLICATION NUMBER: 60/002,687 FILING DATE: 23-AUG-1995
                                                                                                                                                                                                                   STREET: 4220
CITY: La Jolla
                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Gough, Monisha
                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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                                                                                                                                                                                   COUNTRY: UZIP: 92037
                                                                                                                                                                                                                                               ADDRESSEE: Fish & Richardson P.C. STREET: 4225 Executive Square, Suite 1400
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Lee, Hyun-Soo
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Kim, Jeong Hyun
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Hancock, Robert E. W.
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                                                                   US/08/702,054B
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                              US-09-099-631A-1
                                            RESULT 8
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                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/076,227
CURRENT FILING DATE: 1998-05-12
NUMBER OF SEQ ID NOS: 37
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:

APPLICANT: Selsted, Michael E.

TITLE OF INVENTION: Indolicidin Analogs and Methods of Using Same
FILE REFERENCE: P-UC 3049
Sequence 1, Application US/09099631A Patent No. 6444645
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                OTHER INFORMATION: Description of Artificial Sequence: Synthetic OTHER INFORMATION: construct
                                                                                                                                                                                                                                                                                                                ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                            LENGTH: 13
TYPE: PRT
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TELECOMMUNICATION INFORMATION:
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1 Similarity 100.0%;
13; Conservative 0;
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Pred. No.
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GENERAL INFORMATION:
APPLICANT: Selsted, Michael E.
APPLICANT: Osapay, Klara
APPLICANT: Osapay, Klara
TITLE OF INVENTION: Crosslink-Stabilized Indolicidin Analogs
FILE REFERENCE: P-UC 3050

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CURRENT APPLICATION NUMBER: US/09/099,631A CURRENT FILING DATE: 1998-06-18

SOFTWARE: SEQ ID NO 1

NUMBER OF SEQ ID NOS:

PatentIn Ver. 2.1

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; NAME/KEY: MOD_RES; LOCATION: (13); OTHER INFORMATION: AMIDATION US-09-099-631A-1
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US-09-099-631A-3
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US-09-318-195A-2
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APPLICANT: Osapay, Klara
APPLICANT: Osapay, Klara
TITLE OF INVENTION: Crosslink-Stabilized Indolicidin Analogs
FILE REFERENCE: P-UC 3050
CURRENT PELLING DATE: 1938-06-18
NUMBER OF SEQ ID NOS: 13
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 3
SEQ NO 13
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GENERAL INFORMATION:
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                                                       SEQ ID NO 2
                                                                                     TITLE OF INVENTION: Self-Preserving Multipurpose Ophthalmic Solutions
TITLE OF INVENTION: Incorporating a Polypeptide Antimicrobial
TITLE OF INVENTION: Incorporating a Polypeptide Antimicrobial
TITLE REFERENCE: 017942-0014008;
CURRENT APPLICATION NUMBER: US/09/318,195A
CURRENT FILING DATE: 1999-05-25
CURRENT FILING DATE: 1999-05-25
CURRENT FILING DATE: 1999-05-25
CURRENT FILING DATE: 1999-05-25
                                                                                                                                                                                                   APPLICANT: Tuse, Daniel
APPLICANT: Mortelmans, Kristien
APPLICANT: Hokama, Leslie A.
APPLICANT: Chapoy, Larry L.
APPLICANT: Quinn, Michael H.
APPLICANT: Large Scale Biology Corporation
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                                                                       SOFTWARE: PatentIn Ver.
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NAME,KEY: MOD_RES
LOCATION: (13)
OTHER INFORMATION: AMIDATION
OTHER INFORMATION: Description of Artificial Sequence: Synthetic
OTHER INFORMATION: Construct
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ORGANISM: Artificial Sequence
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les 13; Conserv
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Pred. No.
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Pred. No. 1.1e-07;
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OTHER INFORMATION: Description of Artificial Sequence:indolicidin; OTHER INFORMATION: analog Indol-12-R13-R-OH US-09-318-195A-2
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US-09-030-619-98
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US-09-030-619-204
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Best Local S
Matches 13
                             SOFTWARL.
SEQ ID NO 204
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SEQ ID NO 98
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                                                                                                                                                                                                                                                                                                                           Sequence 204,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Fraser, Janet R.
APPLICANT: West, Michael H.P.
APPLICANT: McNicol, Patricia J.
APPLICANT: MCNIcol, Patricia J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALC
TITLE OF INVENTION: WITH ANTIBIOTICS
TITLE DEFENCE: GEORGIA AGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                            APPLICANT: MCNICOL, Patricia J.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALG
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/030,619B CURRENT FILING DATE: 1998-02-25
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                                                            CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT FILING DATE: 1998-02-25
NUMBER OF SEQ ID NOS: 23-2
SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT ORGANISM: Artificial Sequence
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                 TYPE: PRT
ORGANISM: Bos taurus
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les 13; Conserv
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Erfle, Douglas
                                                                                                                                                                                                                          Taylor, Robert
Erfle, Douglas
Fraser, Janet R.
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                                                                                                                                                                                                               West, Michael H.P
                                                                                                                                                                                                                                                                          Krieger, Timothy J.
                                                                                                                                                                                                                                                                                                                           Application US/09030619B
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Pred. No. 1.1e-07;
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RESULT 14
US-09-667-486-29
; Sequence 29, Application US/09667486
; Patent No. 6538106
; GENERAL INFORMATION:
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US-09-416-481A-1
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GENERAL INFORMATION:
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Best Local
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PRIOR APPLICATION NUMBER: US 09/076,227
PRIOR FILING DATE: 1998-05-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Selsted, Michael E.
TITLE OF INVENTION: Indolicidin Analogs and Methods of Using
FILE REFERENCE: P-UC 3794
CURRENT APPLICATION NUMBER: US/09/416,481A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 39
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LOCATION: (13)
OTHER INFORMATION: AMIDATION
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COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC COMPATIBLE

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PATENTIN Release #1.0,

CURRENT APPLICATION DATA:
                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
                                                                                                                                                                                                                                                        TITLE OF
                                                                                                                                                                                                                                                                                                                                        APPLICANT: Fraser,
                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 90
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                                                                                                                      COUNTRY:
                                                                                                                                 CITY: Seattle
STATE: Washington
                                                                                                                                                                    STREET: 6300 Columbia Center,
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                                                                                                   ZIP: 98104
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                                                                                                                                                                                                                          F: Fraser, Janet R.
West, Michael H.P.
Krieger, Timothy J.
Taylor, Robert
Erfle, Douglas
INVENTION: COMPOSITIONS AND METHODS FOR TREATING
INFECTIONS USING ANALOGUES OF INDOLICIDIN
                                                                                                                     USA
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; SEQUENCE DESCRIPTION: SEQ ID NO: US-09-667-486-29
Search completed: October Job time : 26 secs
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                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Selsted, Michael E.
APPLICANT: Selsted, Michael E.
TITLE OF INVENTION: Indolicidin Analogs and Methods of Using Same
FILE REFERENCE: P-UC 3049
CURRENT APPLICATION NUMBER: US/09/076,227
CURRENT FILING DATE: 1998-05-12
NUMBER OF SEQ ID NOS: 37 -
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 24
LENGTH: 14
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 24, Application US/09076227 Patent No. 6303575
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Best Local Similarity
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OTHER INFORMATION: Xaa is home
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                                                                                                                                                                                                                                       OTHER INFORMATION:
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APPLICATION NUMBER: US/08/915,314
FILING DATE: 20-AUG-1997
ATTORNEY/AGENT INFORMATION:
NAME: No. 6538106tenburg Ph.D., Carol
REGISTRATION NUMBER: 39,317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 660081.405
TELECOMMUNICATION INFORMATION:
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TYPE: amino acid
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                                                                 ILPWKWPWWPWRR
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TELEFAX: (206) 682-6031
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                                                                                                                                                                                                                       construct
                                                                                                                                                                                                                                       Description of Artificial Sequence: Synthetic
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Pred. No. 1.1e-07;
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Result
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Maximum DB
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                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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2: '/cgn2_6/ptodata/2/pubpaa/U

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/cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
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US-09-030-619-204
US-09-017-340-13
1 US-09-918-792-5
1 US-09-988-792-5
1 US-09-820-053A-57
2 US-10-229-368-3
2 US-10-229-368-4
2 US-10-225-087-3
2 US-10-25-087-3
5 US-10-125-087-3
5 US-10-125-087-3
6 US-10-125-77-3-2
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          US-09-909-652-5
US-09-030-619-40
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{without alignments}
31.643 Million cell updates/sec
Sequence 98, Appl
Sequence 204, Appl
Sequence 13, Appli
Sequence 57, Appli
Sequence 42, Appli
Sequence 3, Appli
Sequence 4, Appli
Sequence 4, Appli
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Sequence 5, Appli
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US-10-229-368-6	US-10-229-368-5	US-09-030-619-109	US-09-030-619-99	US-09-030-619-95	US-09-030-619-53	US-10-225-087-77	US-10-225-087-72	US-10-225-087-38	-10-225-087	US-10-229-368-87	US-10-229-368-82	US-10-229-368-41	US-10-229-368-20	US-09-030-619-112	US-09-030-619-73	US-09-030-619-67	US-09-030-619-43	US-10-225-087-37	US-10-229-368-40	US-09-030-619-107	US-10-225-087-32	US-10-229-368-33	US-09-030-619-104	US-09-030-619-50	US-10-225-087-16	US-10-229-368-16	US-09-030-619-39	US-10-225-087-17	US-10-229-368-17
Sequence 6, Appli	0 5, 2	Sequence 109, App	Sequence 99, Appl	95,	53,	77,	72		20,	87,	82,	41,	Sequence 20, Appl	Sequence 112, App	73,		3, 7	37,	e 40,	107,	32,	e 33,	Sequence 104, App	, ,	Sequence 16, Appl	Sequence 16, Appl	39, 1	Sequence 17, Appl	Sequence 17, Appl

ALIGNMENTS

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US-09-030-619-98
                                                                                                                                                                                                                    SEQ ID NO 98
LENGTH: 13
TYPE: PRT
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                                                                                         Query Match
Best Local S
                                                                         Matches
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APPLICANT: Erile, Douglas
APPLICANT: Fraser, Janet R.
APPLICANT: West, Michael H.P.
APPLICANT: West, Michael H.P.
APPLICANT: MCNICOL, Patricla J.
APPLICANT: MCNICOL, Patricla J.
APPLICANT: MCNICOL, PATRICLA SAND METHODS FOR TREATING
TITLE OF INVENTION: INFECTIONS USING CATIONIC PEPTIDES ALO
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
CURRENT APPLICATION NUMBER: US/09/030,619B
CURRENT ETLING DATE: 1998-02-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
                                                                                                                                                                                    FEATURE:
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l Similarity
13; Conserv
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Pred. No.
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RESULT 2 US-09-030-619-204

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; TYPE: PRT; ORGANISM: Bos taurus US-09-030-619-204
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                                                                                  US-09-988-792-5
                                                                                                   RESULT 4
                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Bos taurus US-09-917-340-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 60/221,632
PRIOR FILING DATE: 2000-07-28
PRIOR APPLICATION NUMBER: 60/249,602
PRIOR FILING DATE: 2000-11-17
PRIOR FILING DATE: 2000-11-17
PRIOR APPLICATION NUMBER: 60/290,932
PRIOR FILING DATE: 2001-05-15
PRIOR FILING DATE: 2001-05-15
NUMBER OF SEQ ID NOS: 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Murphy, Christopher J.
APPLICANT: McAnulty, Jonathan F.
APPLICANT: Reid, Ted W.
TITLE OF INVENTION: Transplant Media
                 Sequence 5, Application US/09988792 Publication No. US20030032599A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 204
LENGTH: 13
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Best Local Similarity
Matches 13; Conserv
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SEQ ID NO 13
LENGTH: 13
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Best Local :
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APPLICANT: Taylor, Robert
APPLICANT: Erile, Douglas
APPLICANT: Erile, Douglas
APPLICANT: Fraser, Janet R.
APPLICANT: West, Michael H.P.
APPLICANT: MOMERITIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
TITLE OF INVENTION: WITH ANTIBIOTICS
FILE REFERENCE: 660081.406
FURBER OF SEQ ID NOS: 232
NUMBER OF SEQ ID NOS: 232
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APPLICANT: Lipkowski, Andrezej W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/917,340 CURRENT FILING DATE: 2001-07-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: TPLANT-06468
                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
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GENERAL INFORMATION:
APPLICANT: Owen, Donald R.
TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES
FILE REFERENCE: HELX027
CURRENT APPLICATION NUMBER: US/09/820,053A
CUBRENT FILING DATE: 2001-03-28
NUMBER OF SEQ ID NOS: 165
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 57
                                                                                                                                                                                                                          RESULT 6
US-09-820-053A-57
; Sequence 57, Application US/09820053A
; Publication No. US20030083243A1
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US-09-820-053A-42
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Best Local S
Matches 13
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publication No. US20030083243A1
GENERAL INFORMATION:
APPLICANT: Owen, Donald R.
TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES
FILE REFERENCE: HELX027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 5
LENGTH: 13
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 42
LENGTH: 13
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Best Local
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PRIOR FILING DATE: 2000-11-21
NUMBER OF SEQ ID NOS: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Carr, Daniel B
TITLE OF INVENTION: NOVEL ANTIMICROBIAL COMPOUNDS
FILE REFERENCE: 18475-025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/988,792
CURRENT FILING DATE: 2001-11-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: ARTIFICIAL SEQUENCE
FEATURE:
OTHER INFORMATION: SYNTHETIC SEQUENCE
NAME/KEY: MOD_RES
LOCATION: (13)
OTHER INFORMATION: AMIDATION
                                 LENGTH: 1:
TYPE: PRT
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FEATURE:
               ORGANISM: ARTIFICIAL SEQUENCE
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Pred. No. 3.6e-05;
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Pred. No. 3.6e-05;
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; OTHER INFORMATION: SYNTHETIC SEQUENCE US-09-820-053A-57

Length 13;

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                                                      US-10-229-368-4
                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/229,368
CURRENT FILING DATE: 2002-08-26
NUMBER OF SEQ ID NOS: 140
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 13
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CURRENT FILING DATE: 2002-08-26
NUMBER OF SEQ ID NOS: 140
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3
   Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                  Sequence 4, Application US/10229368
Publication No. US20030148945A1
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Best Local Similarity
Matches 13; Conserv
                                                                                                                                                                                                                                  APPLICANT: MCNICO1, Patricia J.
APPLICANT: Pawlak, Sonia K.
APPLICANT: Rubinchik, Evelina
APPLICANT: Cameron, Dale
APPLICANT: Cameron, Dale
TITLE OF INVENTION: ANTIMICROBIAL AND ANTI-INFLAMMATORY
TITLE OF INVENTION: PEPTIDES
FILE REFERENCE: 660081.418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Cameron, Dale
APPLICANT: Guarna, Maria Marta
TITLE OF INVENTION: ANTHMICROBIAL AND
TITLE OF INVENTION: PEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: McNicol, Patricia J.
APPLICANT: Pawlak, Sonia K.
APPLICANT: Rubinchik, Evelina
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
OTHER INFORMATION: Indolicidin peptide analogs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                     ORGANISM: Artificial Sequence FEATURE:
                                                                                                                      TYPE: PRT
                                                                    OTHER INFORMATION: Indolicidin peptide analogs
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Pred. No.
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; DB 12;
. 3.6e-05;
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3.6e-05;
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3.6e-05;
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RESULT 11 US-10-109-171-42

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APPLICANT: Krieger, Timothy J.
APPLICANT: MCNICOI, PATRICA J.
APPLICANT: MCNICOI, PATRICA J.
APPLICANT: TERSER, Janet R.
TITLE OF INVENTION: ANTIMICROBIAL CATIONIC PEPTIDES AND TITLE OF INVENTION: FORMULATIONS THEREOF FILE REFERENCE: 660081.417
CURRENT APPLICATION NUMBER: US/10/225,087
CURRENT FILING DATE: 2003-01-10
NUMBER OF SEQ ID NOS: 121
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4
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US-10-225-087-4
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LENGTH: 13
TYPE: PRT
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APPLICANT: Krieger; Timothy J.
APPLICANT: MCNicol, Patrica J.
APPLICANT: Fraser; Janet R.
APPLICANT: MINISTER REFERENCE: 660081.417
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                                                                   Matches
                                                                                 Best Local
                                                                                               Query Match
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SOFTWARE: FastSEQ for Windows Version 4.0
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CURRENT FILING DATE: 2003-01-10
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TYPE: PRT
                                                                                                                                                                   ORGANISM: Artificial Sequence FEATURE:
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                                                                                                                                                  OTHER INFORMATION: Indolicidin analog
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1 ILPWKWPWWPWRR 13
                                                                   . Similarity
13; Conserva
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Pred. No.
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Pred. No.
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                                                                  3.6e-05;
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3.6e-05;
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; FEATURE:
; OTHER INFORMATION: SYNTHETIC SEQUENCE
; NAME/KEY: MOD_RES
; LOCATION: (13)
; OTHER INFORMATION: AMIDATION
US-10-109-171-42
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Best Local Similarity
Watches 13; Conserve
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APPLICANT: Owen, Donald R.
APPLICANT: Owen, Donald R.
TITLE OF INVENTION: SHORT BIOACTIVE PEPTIDES AND METHODS FOR THEIR USE
FILE REFERENCE: HELX028
CURRENT APPLICATION NUMBER: US/10/109,171
CURRENT FILING DATE: 2002-03-28
NUMBER OF SEQ ID NOS: 165
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                            Sequence 2, Application US/10252773 Publication No. US20030131383A1 GENERAL INFORMATION:
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Best Local Similarity
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Publication No. US20030109452A1
APPLICANT: EVERETT, NICHOLAS P.
APPLICANT: LI, QUNIGSHUN
APPLICANT: LAWRENCE, CHRISTOPHER
APPLICANT: LAWRENCE, CHRISTOPHER
APPLICANT: DAVIES, MAELOR H.
TITLE OF INVENTION: PEPTIDES WITH ENHANCED STABILITY TO PROTEASE
TITLE OF INVENTION: DEGRADATION
FILE REFERENCE: INTERLINK 3.0-003
CURRENT APPLICATION NUMBER: US/10/252,773
CURRENT FILING DATE: 2002-09-23
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TYPE: PRT
ORGANISM: ARTIFICIAL SEQUENCE
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ORGANISM: ARTIFICIAL SEQUENCE
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Pred. No. 3.6e-05;
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Pred. No. 3.6e-05;
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; OTHER INFORMATION: Ubiquitin indolicidin fusion protein fragment \textsc{us-09-909-652-5}
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US-09-909-652-5
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LENGTH: 13
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                      GENERAL INFORMATION: APPLICANT: Krieger
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APPLICANT: Kairos Scientific, Inc.
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 60/219,179
PRIOR FILING DATE: 2000-07-19
NUMBER OF SEQ ID NOS: 7
SOFTWARE: Factors
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APPLICANT:
APPLICANT:
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TITLE OF INVENTION:
TITLE OF INVENTION:
                                                  APPLICANT:
APPLICANT:
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TITLE OF INVENTION: HIGH-THROUGHPUT METHODS FOR GENERATING
TITLE OF INVENTION: AND SCREENING COMPOUNDS THAT AFFECT CELL VIABILITY
FILE REFERENCE: 22346-7001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/106,373
PRIOR FILING DATE: 1998-10-30
PRIOR APPLICATION NUMBER: 60/106,573
PRIOR FILING DATE: 1998-11-02
NUMBER OF SEQ ID NOS: 27
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
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Coleman, William J.
Fraser, Janet R.
West, Michael H.P.
McNicol, Patricia J.
WCNICOL, PatritionS AND METHODS FOR TREATING
VENTION: COMPOSITIONS AND METHODS FOR TREATING
VENTION: INFECTIONS USING CATIONIC PEPTIDES ALONE OR IN COMBINATION
VENTION: WITH ANTIBIOTICS
                                                                                                 Taylor, Robert
Erfle, Douglas
                                                                                                                                      Krieger, Timothy J.
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Pred. No.
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Pred. No.
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3.6e-05;
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